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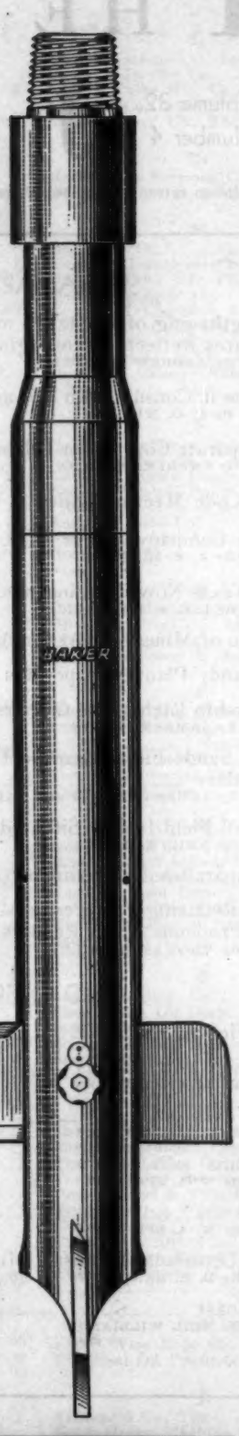


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# Strengthening of Crude Oil and Gasoline Price Structures Reflects Encouraging Outlook

By ANDREW M. ROWLEY

MATTERS of extreme importance to the future of the petroleum industry will be decided during the next week or so. With enactment of the industry recovery bill by Congress it behooves the oil business to formulate quickly its codes of ethics for the different branches. Meetings are scheduled to be held in Chicago this week for discussion of codes and other procedure necessary before the petroleum industry can enjoy the benefits of provisions of the industry recovery bill.

Constructive action on the part of the petroleum industry has been handicapped greatly and, in many cases nullified, in the past by the activity of a small minority. It is hoped now a program can be formulated which will benefit the industry as a whole and which can be made effective through provisions of the new Federal law.

The new proration order for East Texas is reported to permit an allowable of between 500,000 and 540,000 barrels daily. While such a production is higher than many conservative operators had hoped for it is more than 400,000 barrels daily less than the field has been producing. Of course there is the possibility the new allowable will be exceeded, as has been the case in the past, especially if crude oil prices are increased as many believe they will be in the near future.

Despite predictions there will be a decrease in consumption during the next six months, the Economics Committee of the American Petroleum Institute figuring the drop will be 3.4 per cent as compared to the same period last year, many oil company executives report their sales are considerably higher than at this time last year and the feeling is growing the industry can show an actual increase in demand. It is pointed out the World's Fair at Chicago offers an unusual opportunity for the oil business to increase its sales of gasoline and lubricating oils as the Fair continues for a period of five months during the best motoring season of the year.

There has been an appreciable strengthening of the gasoline market, due largely to buying in anticipation of the enactment of the additional Federal gasoline tax and to the general belief crude oil prices will be advanced soon. Higher crude oil prices are certain but the extent of the advance will depend largely upon the allowable given East Texas and how effective is enforcement of the new order.

## Crude Oil Production in the United States

Estimated daily average production for the week ending June 10, and a comparison with previous week and one year ago, follows:

| | June 10 | June 3 | June 11, 1932 |
|---|---|---|---|
| Oklahoma— | | | |
| Oklahoma City | 180,835 | 141,181 | 106,730 |
| Seminole-St. Louis | 92,040 | 93,395 | 110,915 |
| Remainder of State | 182,435 | 183,995 | 216,140 |
| Total Oklahoma | 455,310 | 418,571 | 433,785 |
| East Texas— | | | |
| Lathrop | 379,975 | 388,415 | 124,214 |
| Kilgore | 286,280 | 289,945 | 101,020 |
| Joiner | 258,490 | 264,620 | 105,195 |
| Total East Texas | 924,745 | 942,980 | 330,429 |
| West Texas | 158,696 | 157,805 | 179,343 |
| North Central Texas | 64,905 | 63,895 | 75,851 |
| Texas Panhandle | 42,948 | 45,312 | 51,362 |
| East Central Texas | 58,433 | 58,587 | 56,935 |
| Gulf Coast—Texas | 180,525 | 195,735 | 108,904 |
| Southwest Texas | 53,094 | 51,222 | 59,815 |
| Total State of Texas | 1,483,346 | 1,515,536 | 862,639 |
| Kansas | 106,580 | 107,670 | 94,880 |
| North Louisiana | 25,325 | 25,105 | 29,580 |
| Gulf Coast—Louisiana | 41,052 | 42,439 | 33,033 |
| Arkansas | 29,940 | 29,875 | 34,155 |
| Eastern Fields | 106,000 | 105,200 | 120,000 |
| Rocky Mountain area | 73,620 | 72,340 | 80,012 |
| California— | | | |
| Santa Fe Springs | 54,000 | 53,750 | 61,000 |
| Long Beach | 74,000 | 76,500 | 76,000 |
| Playa Del Rey | 11,250 | 11,500 | 17,250 |
| Elwood | 13,000 | 13,250 | 14,000 |
| Kettleman Hills | 61,500 | 61,500 | 60,000 |
| Remainder of State | 261,750 | 261,000 | 257,750 |
| Total California | 475,500 | 477,500 | 486,000 |
| Total United States | 2,796,673 | 2,794,236 | 2,174,084 |

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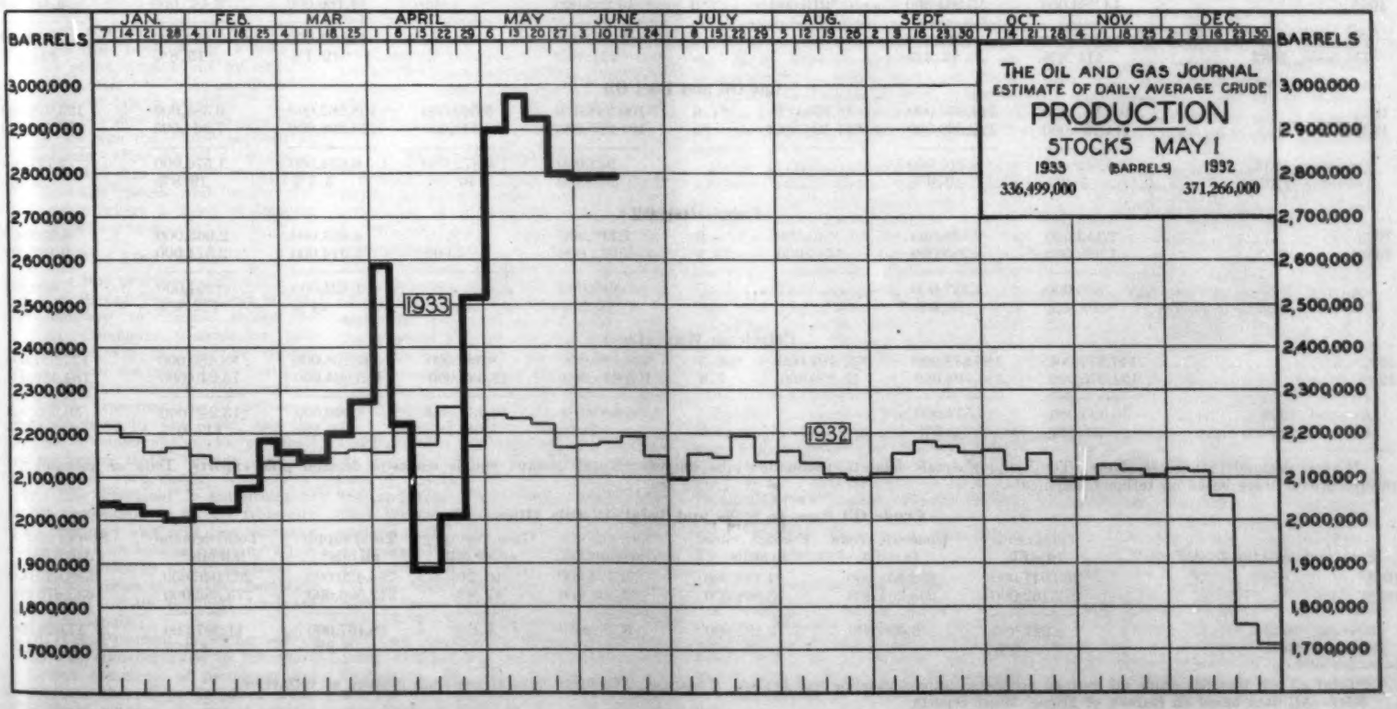

# Decline in Consumption of Petroleum Products Not as Great as Predicted Earlier in Year

By C. O. WILLSON

The demand for crude oil and all the principal refinery products is not showing the decrease expected for 1933, according to data based on Bureau of Mines reports for the first four months. It was generally predicted at the first of the year that 1933 would bring the greatest yearly decline in demand for petroleum products in the history of the industry. The April report which was released during the past week does not support this prediction and when taken with data for the three previous months shows that the declines when compared with 1932 are less than when the latter figures are compared with 1931.

Taking into consideration that the first four months of this year represented the bottom of the depression period and assuming that the recent upturn in general business is to continue it seems reasonable to conclude that the oil industry will further improve this record as the year progresses with the possibility that the demand for some of the principal refinery products will show a substantial gain over 1932 before the year 1933 is ended.

The accompanying summary table was prepared for the purpose of giving comparisons of the first four months of 1933 and 1932 so that those interested can readily understand the trends in supply and demand for crude oil and the refinery products which constitute better than 95 per cent of the total output.

### Crude Oil

For the first four months the decline in total crude oil demand was 3.7 per cent. The decrease the first four months of 1932 compared to 1931 was 4.7 per cent. As shown in the table there was an actual increase in the demand for domestic crudes a condition brought about by the import taxes which resulted in a decrease of 38.2 per cent in the inshipments of foreign crude oil to this country.

The demand for crude oil in this country has been showing a steady decline since 1929 when an all-time peak was established. The present total demand for crude oil now is about 80 per cent of the 1929 peak. Some economists are predicting that 1933 will be the low point in this trend toward decreased crude oil demand with an upturn in yearly requirements to follow.

### Empty Storage

Crude oil stocks were reduced in April due to the shutdown of the East Texas Field over a large part of the month but it is estimated that at least 10,000,000 bbls. were added to storage during May. For the four-month period ending April 30, 4,385,000 bbls. of crude oil were added to storage. The stocks of refinable crude oil on April 30 were 34,767,000 bbls. less than on the same date in 1932. Total stocks of all oils were 47,028,000 bbls. less. Comparing these stock figures with the peaks of 1929 and 1930 and considering storage built since that time, it is certain that the empty storage at this time throughout the United States is well over 100,000,000 bbls.

### Motor Fuels

According to the data for the first four months the total demand for motor fuels (domestic consumption plus exports) based on refinery shipments was 94.5 per cent of the same period in 1932. With records of decreasing motor vehicle registrations, a 75 per cent decline from the peak in new car output and the necessity of operating economy on the part of car owners, many predicted late in 1932 and early 1933 that the total demand for

(Continued on Page 36)

## Crude Oil and Refinery Situation Summarized—First Four Months, 1933-1932

### Supply and Demand—Crude Oil (Bbls.)

| First four months— | Total supply | Total demand* | Excess Supply | Excess Pct. | Domestic production | Imports | Domestic demand* | Exports | Stocks April 30 |
|---|---|---|---|---|---|---|---|---|---|
| 1933 | 277,555,000 | 273,170,000 | 4,385,000 | 1.5 | 265,642,000 | 11,913,000 | 264,271,000 | 8,899,000 | 336,499,000 |
| 1932 | 283,560,000 | 283,917,000 | ‡357,000 | ‡.1 | 264,274,000 | 19,286,000 | 275,471,000 | 8,446,000 | 371,266,000 |
| Decrease, 1933 | 6,005,000 | 10,747,000 | | | †1,368,000 | 7,373,000 | 11,200,000 | †453,000 | 34,767,000 |
| Decrease, 1933 | 2.1% | 3.7% | | | †.5% | 38.2% | 4% | †5% | 9.3% |

*Derived from government data for comparative purposes. †Increase. ‡Excess demand.

### Supply and Demand—Refinery Products—Motor Fuel (Bbls.)

| First four months— | Total supply | Total demand | Excess Supply | Excess Pct. | Domestic production | Imports | Domestic demand* | Exports | Stocks April 30 |
|---|---|---|---|---|---|---|---|---|---|
| 1933 | 124,218,000 | 118,329,000 | 5,889,000 | 4.9 | 124,214,000 | 4,000 | 108,225,000 | 10,104,000 | 56,104,000 |
| 1932 | 138,859,000 | 125,274,000 | 13,585,000 | 9.8 | 133,604,000 | 5,255,000 | 112,154,000 | 13,120,000 | 64,466,000 |
| Decrease, 1933 | 14,641,000 | 6,945,000 | | | 9,390,000 | 5,251,000 | 3,929,000 | 3,016,000 | 8,362,000 |
| Decrease, 1933 | 10.5% | 5.5% | | | 7% | 99% | 3.5% | 23% | 12.9% |
| **Kerosene** | | | | | | | | | |
| 1933 | 15,977,000 | 15,721,000 | 256,000 | 1.5 | 15,977,000 | | 12,830,000 | 2,891,000 | 5,230,000 |
| 1932 | 14,289,000 | 15,204,000 | *915,000 | *6 | 14,285,000 | 4,000 | 11,769,000 | 3,435,000 | 4,417,000 |
| Decrease, 1933 | †1,688,000 | †517,000 | | | †1,692,000 | | †1,061,000 | 544,000 | †813,000 |
| Decrease, 1933 | †11.8% | †3.3% | | | †11.8% | | †9.1% | 15.8% | †18.4% |
| **Gas Oil and Fuel Oil** | | | | | | | | | |
| 1933 | 105,917,000 | 114,650,000 | *8,733,000 | *7.6 | 100,348,000 | 5,569,000 | 108,262,000 | 6,388,000 | 123,969,000 |
| 1932 | 111,736,000 | 122,860,000 | *11,124,000 | *9 | 101,295,000 | 10,441,000 | 114,296,000 | 7,964,000 | 126,726,000 |
| Decrease, 1933 | 5,819,000 | 8,210,000 | | | 947,000 | 4,872,000 | 6,634,000 | 1,576,000 | 2,757,000 |
| Decrease, 1933 | 5.2% | 6.6% | | | .93% | 46.6% | 5.7% | 19.8% | 2.1% |
| **Lubricating Oil** | | | | | | | | | |
| 1933 | 7,113,000 | 7,158,000 | *45,000 | .6 | 7,113,000 | | 4,493,000 | 2,665,000 | 8,330,000 |
| 1932 | 7,939,000 | 8,285,000 | *346,000 | *4.1 | 7,932,000 | 7,000 | 5,914,000 | 2,371,000 | 9,139,000 |
| Decrease, 1933 | 826,000 | 1,127,000 | | | 819,000 | | 1,421,000 | †294,000 | 809,000 |
| Decrease, 1933 | 10.4% | 13.5% | | | 10.3% | | 24% | †12.4% | 8.8% |
| **Petroleum Wax (Lbs.)** | | | | | | | | | |
| 1933 | 147,977,000 | 185,678,000 | *37,701,000 | *20.3 | 138,880,000 | 8,097,000 | 97,198,000 | 88,480,000 | 124,927,000 |
| 1932 | 194,370,000 | 181,104,000 | 13,266,000 | 7.3 | 175,840,000 | 18,530,000 | 105,864,000 | 75,240,000 | 184,486,000 |
| Decrease, 1933 | 46,393,000 | †4,574,000 | | | 36,960,000 | 10,433,000 | 8,666,000 | †13,240,000 | 59,559,000 |
| Decrease, 1933 | 23.8% | †2.5% | | | 21% | 56.3% | 8.1% | †17.6% | 32.3% |

*Excess demand. †Increase. Note—Total supply equals domestic production plus imports. Total demand equals domestic demand plus exports. Data on demand for refined products are based on refinery shipments.

### Crude Oil Runs to Stills and Total All Oils (Bbls.)

| First four months— | Total crude to stills | Domestic crude to stills | Foreign crude to stills | Nat. gasoline production | Gaso. recovery crude oil‡ | Total supply all oils* | Total demand all oils* | Stocks all oils April 30† |
|---|---|---|---|---|---|---|---|---|
| 1933 | 263,941,000 | 252,158,000 | 11,783,000 | 56,104,000 | 46.2% | 294,429,000 | 262,046,000 | 588,647,000 |
| 1932 | 272,162,000 | 258,254,000 | 13,908,000 | 64,466,000 | 47.8% | 312,596,000 | 273,353,000 | 635,675,000 |
| Decrease, 1933 | 8,221,000 | 6,096,000 | 2,125,000 | 8,362,000 | 1.6% | 18,167,000 | 11,307,000 | 47,028,000 |
| Decrease, 1933 | 3% | 2 2% | 15.3% | 12.9% | ..... | 5 8% | 4.1% | 7.4% |

*Total all oils includes crude oil, refined products, natural gasoline and benzol. †Increase. ‡Includes natural gasolines blended at refineries.
Note—All data based on Bureau of Mines' latest reports.

# No Separate Control for the Petroleum Industry Left in the New Industrial Recovery Law

By CHARLES E. KERN
Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., June 13.—The industry recovery bill, after prolonged discussion and amendment, will become effective immediately on being signed by the President.

In the main it is the administration bill, neither the Marland-Capper or Ickes bills, proposing separate control for the oil industry, being considered in the final sessions. The Connally amendment prohibiting interstate shipment of oil produced in violation of state laws and the provisions for investigation of pipe line operations were the chief additions.

The bill as originally passed by the House was subjected to some 90 amendments in the Senate Committee on Finance. When reported to the Senate as amended a motion to strike out the enforcement provisions was defeated by a vote of 57 to 31. A motion to eliminate the entire industry control section was defeated by 49 to 31.

Senator Borah offered an amendment that codes of fair competition "shall not permit combinations in restraint of trade, price fixing or other monopolistic practices." It was accepted in committee by Chairman Harrison but subsequently modified by elimination of the price-fixing prohibition and leaving it to the President to decide whether monopolistic acts were intended. Sponsors of the bill held that Senator Borah's amendment would have prohibited conferences on codes and nullified the purpose of the act.

An amendment by Senator George to strike out "geographical area" and make the licensing program apply to industries generally was adopted.

Voting 57 to 31, the Democrats with the aid of the Republicans, largely Progressives, defeated the motion of Senator Reed (Rep., Pa.) to delete the licensing provisions of the measure, and by a viva voce vote kept the antitrust holiday feature in the bill. The licensing section is to cease to be in effect at the expiration of one year.

The first vote on the taxing provision resulted in the rejection by a vote of 46 to 36 of an amendment by Senator Gore (Dem., Okla.) to strike out the additional half-cent tax on gasoline.

The Senate's pipe line provisions were accepted, as was the clause authorizing the President, after Tariff Commission inquiry, to embargo or limit imports in event domestic prices and wages rise to the point where a flood of imports would be encouraged.

### Pipe Line Clauses

The pipe line provisions follow:

"Section 9. (a) The President is further authorized to initiate before the Interstate Commerce Commission proceedings necessary to prescribe regulations to control the operations of oil pipe lines and to fix reasonable, compensatory rates for the transportation of petroleum and its products by pipe lines, and the Interstate Commerce Commission shall grant preference to the hearings and determination of such cases.

"(b) The President is authorized to institute proceedings to divorce from any holding company any pipe line company controlled by such holding company which pipe line company by unfair practices or by exorbitant rates in the transportation of petroleum or its products tends to create a monopoly.

"(c) The President is authorized to prohibit the transportation in interstate and foreign commerce of petroleum and the products thereof produced or withdrawn from storage in excess of the amount permitted to be produced or withdrawn from storage by any state law or valid regulation or order prescribed thereunder, by any board, commission, officer, or other duly authorized agency of a state. Any violation of any order of the President issued under the provisions of this subsection shall be punishable by fine of not to exceed $1,000, or imprisonment not to exceed six months, or both."

### McAdoo Asks Investigation

A special committee to investigate the oil industry was proposed by Senator McAdoo by the introduction of Senate Resolution 92, which has been referred to the Committee on the Judiciary.

The resolution provides: "That a special committee consisting of five senators, to be appointed by the president of the Senate, is authorized and directed to investigate the production, purchase, storage, transportation, refining and sale of petroleum and its products, with particular regard to monopolistic practices. The committee shall report to the Senate, as soon as practicable, the results of its investigation, together with its recommendations for legislation." The expenses of the committee are not to exceed $20,000.

### Roper Planning Committee

While Congress was discussing the industry recovery bill, Secretary of Commerce Roper began formation of a long-range planning committee of business and industrial leaders to advise the administration on economic policy.

A preliminary meeting was attended by Gerard Swope, president of the General Electric Co.; Alexander Legge, president of the International Harvester Co.; H. I. Harriman, president of the Chamber of Commerce of the United States; Walter Teagle, president of the Standard Oil Co. (New Jersey); Alfred P. Sloane, president of General Motors Corp., and others.

The meeting, which was called by Mr. Roper to discuss the broad aspects of the

(Continued on Page 18)

# First Meeting to Formulate Code of Practices Will Be Held by Producers in Chicago

First of a series of conferences designed to develop a code of practices for the oil industry under provisions of the National Industrial Recovery Act has been called to meet in Chicago on Thursday, June 15. Representatives of crude oil producers organizations will meet in the Stevens Hotel. Arrangements are being made for a meeting of refined oil marketers but had not been perfected up to this writing.

The committee to formulate plans for a meeting of representatives of marketers includes C. E. Arnott, chairman; H. T. Klein, E. S. Hall, J. W. Carnes, W. T. Holliday, and Allan Jackson.

The producers' meeting will be attended by representatives of organizations of oil producers from all sections of the country. Announcement of the Chicago meeting of producer representatives followed a conference of members of the American Petroleum Institute and appointment of a committee of five to represent that organization. The committee includes J. Edgar Pew, chairman; H. F. Sinclair, C. B. Ames, K. R. Kingsbury and Amos L. Beaty.

### 24 Organizations Invited

Invitations were sent by Axtell J. Byles, president of the Institute, to the officers of 24 organizations of producers in 12 states, asking that each send representative committees, not exceeding five in number, to meet with the Institute committee to discuss and prepare a tentative draft of a code of practices to deal with production in conformity with the proposed Federal law. The invitations were sent to the following organizations: Mid-Continent Oil and Gas Association, Fort Worth; Pennsylvania Grade Crude Oil Association, Bradford; Middle District Producers Association, Oil City; California Oil and Gas Association, Los Angeles; Independent Petroleum Association of America, Oklahoma City; Texas Oil and Gas Conservation Association, Fort Worth; Independent Petroleum Association of California, Los Angeles; Independent Petroleum Association of Texas, Fort Worth; West Central Texas Oil and Gas Association, Fort Worth; North Texas Oil and Gas Association, Wichita Falls; Southeastern Ohio Oil and Gas Association, Woodsfield, Ohio; West Virginia Oil and Gas Association, Fairmount, W. Va.; Rocky Mountain Oil and Gas Association, Casper; Montana Division of Rocky Mountain Oil and Gas Association, Great Falls; East Texas Land and Oil Owners Association, Kilgore; East Texas Producers and Royalty Owners Association, Tyler; Independent Petroleum Association of Arkansas, El Dorado; Kansas-Oklahoma Division of Mid-Continent Oil and Gas Association, Tulsa; Louisiana-Arkansas Division of Mid-Continent Oil and Gas Association, Shreveport; Texas Division of Mid-Continent Oil and Gas Association, Dallas; Oil Producers Sales Agency, Los Angeles; New York State Oil Producers Association, Bolivar, N. Y.; Bradford District Pennsylvania Oil Producers Association, Bradford; and New Mexico Oil Men's Protective Association, Roswell.

### Responses Come Quickly

The Bradford District Pennsylvania Oil Producers Association delegated the following members to attend the meeting: R. M. Haskell, president of the association; P. H. Curry, president, South Penn Oil Co.; Forrest B. Dorn, president, Forrest Oil Corp.; Thomas P. Thompson, Jr., and Earl C. Emery, individual producers.

Ralph T. Zook, president of the Pennsylvania Grade Crude Oil Association, will represent that organization.

The Independent Petroleum Association of America named Russell B. Brown, Washington; J. Steve Anderson, Oklahoma City; Ralph B. Pryor, Wichita, Kans.; Arthur Seeligson, San Antonio, Tex., and Alex Johnson, Tulsa, and four alternates—Paul S. Ache, Earl Sneed, both of Tulsa; Marvin Lee, Wichita; George Hill, Houston, Tex.

### Roeser to Go

Charles F. Roeser of Fort Worth, president of the Texas Oil and Gas Association, named himself as chairman; Jack Shannon of Snowden & McSweeney, Inc., Fort Worth; George Sawtelle of Kirby Petroleum Co., Houston; George Morgan of Cardinal Oil Co., San Antonio, and H. L. Hunt of Hunt Production Co. of Tyler, as delegates.

### Gasoline Men Ready

The Natural Gasoline Association of America Saturday named its delegation to consist of President D. C. Williams, Ponca City; W. K. Warren and S. S. Smith, both of Tulsa; F. E. Rice of Bartlesville, and R. C. Wheeler of Los Angeles.

The general Mid-Continent Oil and Gas Association will have these delegates at the Chicago meeting: T. C. Johnson, Wichita, Kans.; James A. Veasey, Carter Oil Co.; W. N. Davis, Phillips Petroleum Co.; J. D. Collett, Fort Worth, president of the association, and Harry H. Smith, secretary and counsel.

The Kansas-Oklahoma division of the Mid-Continent Oil and Gas Association delegated the following as its representatives: Alvin Richards, Pure Oil Co.; C. C. Herndon, Skelly Oil Co.; E. B. Reeser, Barnsdall Corp.; A. S. Ritchie, Derby Oil Co., and J. T. King, Kingwood Oil Co., as delegates, with C. P. Dimit, Phillips Petroleum Co.; E. J. Nicklos, Continental Oil Co.; A. M. Blow, Amerada Petroleum Corp.; Arthur Denman, Sedan, Kans., and T. F. Birmingham, Margay Oil Co., as the respective alternates.

D. W. Harris, Arkansas Natural Gas Co., and H. C. Walker, independent operator, Shreveport, will represent the Arkansas-Louisiana division of the association, with W. C. Francis, Magnolia Petroleum Co., and J. G. Pew, Sun Oil Co., both of Dallas, the Texas division.

The Oklahoma Stripper Well Association executive committee named yesterday C. D. Klingensmith, Sapulpa; Carl Haun, Blackwell; C. C. Harmon, Nowata; John H. Rebold, Okmulgee, and H. J. Whitehill, Tulsa.

The Kansas Oil Producers and Landowners Association named its four officers: E. G. Shawver, president; T. C. Johnson, vice president; Paul H. White, secretary, and E. W. Pyle, treasurer, all of Wichita.

The Oil Producers Sales Agency of California selected Ralph B. Lloyd, Rush Blodget, C. C. Spicer, Neal H. Anderson and C. A. Johnston as its representatives.

### One Discordant Note

Major J. R. Parten, president of the Independent Petroleum Association of Texas, Monday night telegraphed A. J. Byles, president of the American Petroleum Institute, that the Texas organization declined to accept invitation to attend meeting in Chicago Thursday on the ground that the industry control bill it is to discuss has not yet passed Congress and "we believe it impossible for you to secure attendance of representative delegations" and declaring meetings should be held in each of the oil producing states.

# Standard (N. J.) Makes Farish Chairman of Board and Other Officials Are Given Promotions

By A. E. MOCKLER
New York Bureau, The Oil and Gas Journal

NEW YORK, June 12.—A sweeping revision in executive personnel of the Standard Oil Co. (New Jersey) was effected at the annual meeting of the company this week. The most important changes were the election of W. S. Farish, president of the Humble Oil & Refining Co., to the position of chairman

W. S. FARISH

of the board of the New Jersey company, a post vacant since the death several years ago of George H. Jones; the election of Frank W. Abrams to the presidency of the Standard Oil Co. of New Jersey (the Delaware company), succeeding Charles G. Black, who retires on July 1, and the election of Christy Payne, director and treasurer, to the post of vice president of the parent company. A. C. Minton was elected secretary, succeeding Charles T. White, who retires July 1, and T. C. McCobb was made comptroller, replacing L. E. Freeman.

The board of directors of the holding company was reduced from 19 to 13 members, the directors who retire from the organization on July 1 not being replaced.

Following his election to the chairmanship of the holding company, Mr. Farish resigned as president of Humble Oil & Refining Co., being succeeded by R. L. Blaffer. In connection with the change, Mr. Farish will move his headquarters to New York, and it is reported unofficially that this action marks the acquisition of complete control of Humble by the Standard Oil Co. (New Jersey). Mr. Farish, R. L. Blaffer and H. C. Wiess, also a Humble executive, are understood to own approximately 25 per cent of the 2,974,645 shares of Humble stock. Standard Oil Co. (New Jersey) is understood to hold about 70 per cent of the stock, with the remaining 5 per cent in the hands of the public.

The elevation of Mr. Farish to the post of chairman of the board of the parent company will take part of the executive burden from the shoulders of Walter C. Teagle, president of the company, who has been handling both his own duties and those of the chairman since the death of Mr. Jones in 1928. Mr. Farish is expected to take a much more active part in the executive management of the company than did his predecessor.

### A Leader in the Industry

A former president of the American Petroleum Institute, Mr. Farish has been an outstanding figure in the petroleum industry for many years, and could have held a high executive post with the holding company years ago if he had been inclined to change his residence from Texas to New York. He was formerly a member of the firm of Blaffer & Farish, prominent Texas oil producers. In 1916 the properties of his firm were merged with those of the Humble Oil Co., which had been organized by R. S. Sterling, who was afterward governor of Texas, and Mr. Farish was elected vice president and later president. Three years later the Standard Oil Co. (N. J.) purchased an interest in the company, which was increased to a controlling one in 1925. Mr. Farish became president of the Humble Oil & Refining Co., which today is a completely integrated subsidiary, with producing, pipe line, refinery and marketing operations in Texas.

### Mr. Abrams a Refiner

Frank W. Abrams, who becomes president of the operating Standard Oil Co. of New Jersey (Delaware), has held a number of important posts with the company. Graduating from Syracuse University in 1912, with a degree of civil engineer, he immediately entered the employ of the Standard Oil Co. (New Jersey) at its Eagle works as a draftsman. Two years later he was promoted to the position of plant engineer, and in 1917 was made assistant superintendent. In 1920 he became superintendent of the Eagle plant, and in 1922 was appointed a member of the manufacturing committee and manager of the Eagle works and the Parkersburg refinery. During this period he also had charge of the construction of a new refinery at Palembang, Sumatra.

Mr. Abrams served in the capacity of manager of the Eagle and Parkersburg refineries for several years, and was then made general manager of the three New Jersey refineries. He was later elected a member of the board of directors of the parent company, and now heads the operating Standard Oil Co. of New Jersey.

### Noted Authority on Natural Gas

Christy Payne, newly elected vice president of the Standard Oil Co. (New Jersey) and one of the leading active executives of the holding company, needs no introduction to the oil industry. Though a lawyer by training, Mr. Payne is best known as the country's outstanding authority on natural gas, and as such has had charge of the extensive developments in this field by the Standard Oil Co. (New Jersey) and its subsidiaries. Graduating from Princeton University in 1895, Mr. Payne served as counsel for various natural gas companies, and in 1920 was transferred to New York as director of the natural gas interests of the Standard Oil Co. (New Jersey). He made an enviable record in this capacity, and in 1927 was elected to the board of the company. He is president or a director of the numerous natural gas organizations which the New Jersey company owns or in which it has an interest.

### Mr. Minton's Broad Experience

Adrian C. Minton, who becomes secretary of the parent Jersey company, has had a notable record in his association with the oil industry. Born November 26,

HARRY C. WIESS

1894, at Red Bank, N. J., he graduated from Rutgers University in 1916, and immediately entered the army. On his discharge after the conclusion of the World War he entered the company's first training course, and after various training assignments at Bayonne, Baltimore and New York, was transferred in April, 1920, to the Standard Oil Co. of Louisiana as general salesman in West Tennessee territory. In January, 1922, he was appointed general substation inspector for Tennessee and Arkansas, and in the following year was made special sales

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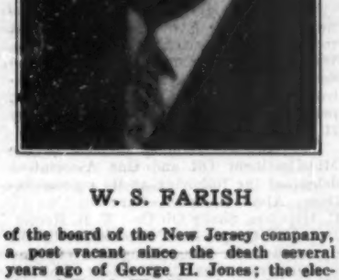

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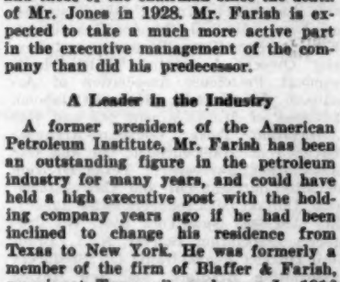

—Photo by Blank-Stoller, Inc.
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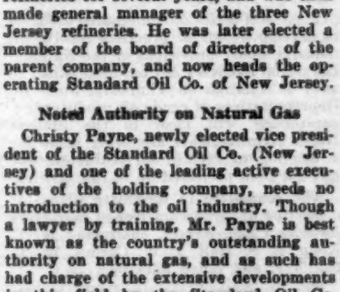
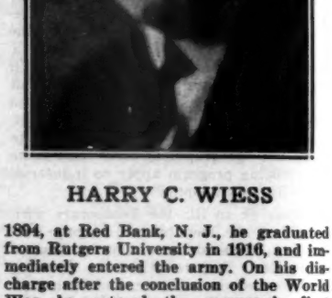


—(c) Bachrach.
ADRIAN C. MINTON



—Asch Studios.
CHRISTY PAYNE

# East Texas Field Now Entering Transition Period From Natural Flow to Mechanical Production

By L. G. E. BIGNELL
Petroleum Engineering Editor

TYLER, Tex., June 12.—The East Texas Field is being prepared for mechanical production as rapidly as possible. This activity at present is largely concentrated in the Carlisle district in the extreme south end and in the Lathrop area at the north boundary of the field with a good deal of work going on in all other districts. There has been some pumping equipment installed gradually during the past two years but the big movement in buying and installing really started within the past six weeks.

With over 10,500 wells in the East Texas Field there will be an enormous amount of equipment needed and it is estimated that with orders now placed not more than 20 per cent of the wells have been taken care of in this respect. There is a limit to the rate at which new equipment can be delivered by manufacturers, also to the speed with which this material can be put into place. The vast majority of the installations are being made upon good concrete foundations and it takes time to place this concrete and permit it to set ready for the heavy machines to be mounted upon it.

The selection of equipment is made upon the basis of many conditions ranging from first costs to efficiency during the pumping life of the well. However, it is anticipated that those who are equipping their wells with only the first named requirement in mind will later be compelled to make changes because much of the cheap machinery will not handle the pumping loads that will be common to East Texas wells.

While complete information is not available at this time as to the average rate of bottom hole decline during the period between May 8 and June 8, the last two test periods, such preliminary data as are available indicates that the drop has been at the rate of about 3.3 pounds per 1,000,000 bbls., or at this rate per day for the withdrawal rate has been maintained at about 1,000,000 bbls. daily during that period.

### Water Movement

As the daily allowable for the field has been upon a well basis without regard to the well's structural position, acreage or any other factor, there has been much greater rate of decline in some thickly drilled areas than in other parts of the field. However, there has been such a continued excess withdrawal of oil from this field since April 24 that many spots are now showing up with low bottom hole pressure and water is moving into the field in appreciable quantities.

This water drive has been anticipated ever since the underground conditions in this field have been understood. It is a normal condition and one common to nearly all pools. And the water drive in East Texas is normal in that it is moving updip or laterally through the Woodbine sand.

Because of the fact that the producing formation in the Carlisle district dips to the south and east it has been noted that the water drive in that area is from the south and east. In the wider part of this district it is probable that later the movement of water from the west will be noted because there is some downdip of Woodbine sand in that direction also.

At the north edge of the Lathrop area the water is coming in from the north. Here again the water is following normal direction of movement as the Woodbine sand in that area dips to the north. In the Turnertown area in the Pru Survey it is reported that water is coming in from the northeast. This area is on the east side of the field and under normal conditions water would be expected to make its appearance from the west. This change in direction of drive probably indicated that water may have been drawn into the area east of the Pru Survey leases by heavy production of oil and is now making its way updip to the wells southwest of the area of heavy withdrawal. There has been an area of low bottom hole pressure along the east edge of the Joiner area for a long time and it now seems probable that water has moved updip from the west to this low pressure area and flooded some of the sand lenses and is now moving to other low pressure zones created by heavy withdrawals.

This direction of water movement is nothing unusual for water always tends to move updip as oil is withdrawn from any sand pool. However, it has always been assumed that the water movements in East Texas would be entirely from the west because it is known that the original water contact existed in that direction. The normal westward dip of the Woodbine pay formation in this field is about 1 foot to the 100 feet. Sections through various portions of the field drawn from east to west show that the producing sand is not of uniform shape nor is the dip of the Georgetown lime, upon which the Del Rio shale and Woodbine sand rest, uniform in rate or direction. In other words the Georgetown lime was folded since the Del Rio shale and Woodbine sands were laid down so that these two formations may now dip in any direction for short distances in various parts of the field.

### Local Stratigraphy Important

Study of the cores taken from wells drilled in this field indicate quite clearly that the producing sands lie in numerous separate lenses varying in size and shape. They are not directly interconnected but all do have some connection with the water. These connecting sand members were the openings through which the oil and gas originally entered the lenses. It is also through them that the water will now enter the lenses as the oil and gas is withdrawn.

The individual lense may assume nearly any shape. The sand forming the lenses may dip in any direction, or in more than one direction. But at some point in the periphery of the sand lense there will be a low point and an opening through which the water can enter. So the water will move into the lense updip with relation to this point of entry.

Difference in pressure within the lenses and in the body of water in contact with the lenses will tend to force the water into the pore spaces originally occupied by oil and gas. However, water movement is not entirely dependent upon hydrostatic pressure for capillarity will tend to draw this water into the space formerly occupied by oil.

Capillary action may be described as due to surface tension by which the surface of a liquid where in contact with a solid, is elevated or depressed. The film tension of water is about three times as great as that of oil so the force available for drawing this water up into the empty sand is tremendous and its action will account for much of the water movement in the East Texas Field.

All of this technical discussion of water movement and stratigraphy of the producing horizon in East Texas Field merely means that the water in the East Texas Field will move in any direction, but it will always move updip with regard to the individual sand lense in which the well under observation is located. So the idea that water will travel only into the sand from the west will probably prove erroneous because the rate of oil withdrawal has not been restricted to approximately the rate of water movement.

This field is ideally situated for a controlled water drive. It has an abundance of water about 143° F. temperature lying to the west of the oil producing area. This water also extended under a large portion of the field and would have moved into the producing horizon at a fairly uniform rate if the rate of oil withdrawal had been controlled. The water will move through the formation much more readily in a horizontal direction or laterally than vertically and as each sand body was depleted of its oil the pore space would have been replaced with water. If given time this action would have washed practically all of the recoverable oil out of the entire reservoir but in so doing it would have been necessary to have restricted the rate of withdrawal to from 225,000 to 300,000 bbls. per day.

### Natural Conditions Disregarded

Instead of considering these natural conditions which would have tended to conserve this great body of oil and have permitted high ultimate recovery from the entire area the daily allowables have been much above the rate of water movement. Some of the owners of property rights in this field have not been able to visualize underground conditions and were actuated only by conditions that had to do with rate of daily recovery.

This neglect or disregard for natural conditions has now brought about the condition that requires immediate installation of a vast amount of machinery to secure the balance of the recoverable oil. And this amount of recoverable oil will be appreciably less than it would have been had the withdrawal rates for the field been limited at all times to about 350,000 bbls. per day.

Having dissipated a large portion of the energy available for producing the oil by natural flow there is nothing now left to do but to equip the wells for mechanical production. This does not mean that any great proportion of the wells are dead or have gone to water. But it does mean that a very large number of the wells in East Texas must now be agitated to cause them to flow after their daily allowable has been taken and they have been shut in until the next day.

When those wells with relatively low bottom hole pressure are shut in after producing their daily allowable the gas drains out of the oil to such an extent that the fluid level in the tubing falls below the surface and the column of oil remaining in the tubing exerts too much pressure against the face of the sand to permit fresh oil and gas to enter.

Such wells are now being treated in various ways. Some are being swabbed back onto production. Others with pump-

(Continued on Page 36)

# Bureau of Mines Report for April Shows Decline in Crude Oil Production

Crude petroleum: According to reports received by the Bureau of Mines, Department of Commerce, the production of crude petroleum in the United States during April, 1933, totaled 65,313,000 bbls., or a daily average of 2,177,000 bbls. This represents a decrease of 252,000 bbls. from the daily average of the previous month and is practically the same as the daily average in February. The material decline in production in April was due largely to the shut down of the East Texas Field, which extended from April 6 to 24. However, the production of that field during the first part of the month and after it was reopened under a new proration plan was high and the total output for the month was 10,467,000 bbls. Production in the Oklahoma City Field averaged 104,000 bbls. daily, hardly more than half of the March figure; this decrease resulted primarily from the shut down of April 1 to 17. The upward trend of production in Kansas and the Louisiana Gulf Coast was continued. Daily average production in the Kettleman Hills Field was unchanged, but the majority of the other important fields in California increased and the daily average for the State rose to 475,000 bbls. from 433,000 bbls. in March. The Conroe Field of Texas showed a material gain in output in April following an increase in the number of producing wells.

The substantial decline in crude production and an increase of 101,000 bbls. in daily average crude runs were reflected in crude stocks, which decreased about 5,200,000 bbls. in April following an increase of 6,648,000 bbls. in March.

Refined products: Daily average runs to stills of domestic crude rose to 2,197,000 bbls. from 2,087,000 bbls. in March but daily average runs of foreign crude declined from 106,000 bbls. in March to 97,000 bbls. in April.

The percentage yield of gasoline remained unchanged at 43.7 per cent, but the gain in crude runs resulted in an increase in motor fuel output from 1,044,000 bbls. daily in March to 1,086,000 bbls. daily in April. Imports of gasoline were negligible but exports totaled 3,256,000 bbls. The indicated domestic demand for motor fuel was 30,176,000 bbls., a daily average of 1,006,000 bbls. This represents a substantial increase over March, due to seasonal influences, but is 3.3 per cent below a year ago. Stocks of motor fuel, which had increased steadily for several months, declined 862,000 bbls. during the month, amounting to 59,694,000 bbls. on April 30. The domestic demand for fuel oils continued to decline, but for lubricating oils shows a substantial gain. Exports of wax continued high, with the total for the first four months of 1933 18 per cent above 1932.

The refinery data of this report were compiled from refineries with an aggregate daily recorded crude oil capacity of 3,409,010 bbls. These refineries operated during April at 67 per cent of their capacity, given above, compared with a ratio of 65 per cent for March.

# Normandy Plant of French Company Incorporates Modern Trends in Design of New Equipment

By ENGINEERING DEPARTMENT
Compagnie Francaise de Raffinage

The construction of the Normandy refinery has been divided into three stages, one practically completed, and two to be carried out in the near future.

The program of the first stage called for distilling and cracking equipment to handle approximately 800,000 tons per annum of crude oil, while a wax plant and some smaller process plants will be installed during the second construction period. During the third stage of refinery construction, the working capacity of the refinery will be increased to approximately 1,600,000 tons of crude oil, and the complete equipment for the manufacture of lubricating oils and asphalt will likewise be installed.

This refinery plant, designed primarily for handling Mesopotamia crude, will have to treat crudes from various oil fields during the next two years prior to the completion of the Iraq pipe line, which will bring Mesopotamia crude oil to the harbors of Tripoli and Haiffa on the easternmost coast of the Mediterranean.

### Layout of Refinery

Crude oil received at the petroleum docks of Le Havre is discharged into intermediate storage tanks at the wharf and delivered to the refinery by means of a pipe line of 10 kilometers length and of 250-millimeter (10-inch) diameter. Two electric-driven Worthington centrifugal pumps of 200 tons hourly capacity and 15 kg./cm.² working pressure serve as pipe line pumps.

The refinery site occupies approximately 150 hectares of lowland at the village of Gonfreville l'Orcher, and lies between the shipping canal Le Havre-Tancarville and the estuary of the River Seine; the shipping canal forming the refinery's border line for approximately 1,500 meters. The proximity of Le Havre, where large oil tankers can unload at the rate of approximately 800 tons of crude oil per hour, the access to the very complete system of inland waterways in France and a direct canal connection with the port of Le Havre, endow the refinery site with excellent transport facilities. A branch railway line also links the refinery with the French state railroad system.

The designing of this refinery has been carried out by the technical staff of Compagnie Francaise de Raffinage. Orders for equipment were placed with domestic engineering firms, most of whom are cooperating with leading American firms of equipment manufacturers. After having carefully studied the particular conditions of this refinery, Compagnie Francaise de Raffinage selected process equipment of modern and approved design. But certain new process schemes were developed to meet special conditions or to bring advantages which could not have been realized with equipment of conventional design.

The following description of the various plants has been arranged in the order of the refining process.

### Predistilling Plant

Fresh crude oil, upon arrival at the refinery, is sent through heat exchangers and into pressure settling vessels where it is kept for about 45 minutes under a pressure of approximately 14 kg./cm.², and at a temperature of 115° C. Water and suspended matter settle out from the crude and are drained into the sewage system while the dehydrated crude flows to a pipe still, where its temperature is raised to 140° C., and then passes into a fractionating tower which is maintained under a pressure of approximately 5 kg./cm.² Sulphuretted hydrogen and the more volatile hydrocarbons are flashed off the crude, and a clean, dehydrated crude oil of very low vapor pressure is obtained as a residue, which is withdrawn and sent through heat exchangers to the refinery storage tanks.

The light products taken off in the fractionating tower are condensed and the noncondensible vapors are compressed to 17 kg./cm.² pressure and cooled. The dry gas thus obtained is released into the refinery fuel-gas main, while all the condensed products are introduced into a stabilizing apparatus where they are separated into light gasoline of controlled vapor pressure and into overhead vapors which yield, upon cooling, a liquefied gas and a dry gas.

Sketch No. 1 shows the principal flow arrangement of this predistilling plant, except that equipment destined for the caustic washing of the flashed-off products has been omitted.

When handling Mesopotamia crude oil there will be obtained approximately 93 per cent of a predistilled, clean crude oil, free from water and highly volatile matter, and 5 per cent of stabilized light gasoline, while gaseous products and b.s. and water are expected to amount to 1 per cent of the crude oil each. The most important advantages of this predistilling plant will be the following:

Improved quality and higher recovery of gasoline as evaporation losses will be avoided; removal of $H_2S$ from the crude and consequent avoidance of plant corrosion and savings in chemicals; lower cost of refinery installations as no vapor recovery system is required for storage tanks and distilling plants.

The working capacity of the crude oil predistilling plant is 20,000 bbls. = 2,200 tons daily. The crude oil requirements of the refinery can be taken care of and a stock of predistilled crude oil gradually accumulated. The designing of this plant has been done by Soc. An. Foster Wheeler, and the actual construction work by the Soc. Francaise de Constructions Babcock & Wilcox, and Soc. Alsthom.

### Distilling Plant

Two distilling units, each of 8,000 bbls. daily capacity, have been selected for the distillation of the predistilled crude oil. The units permit the recovery of gasoline, solvent-naphtha, two kerosene cuts, two gas-oil cuts, and of a pressable wax distillate in addition to fuel oil bottoms.

The units are identical in design and built with special allowance for flexibility of operation, as oils of varying characteristics will be handled. The flow arrangement differs from the usual, as a secondary tower has been provided for fractionating into aviation gasoline and heavy naphtha part or all of the overhead gasoline. The construction of the two distilling units, the plans of which have been prepared by Arthur G. McKee & Co. of Cleveland, Ohio, is being carried out by the world renowned firm of Schneider & Co., the manufacturers of the famous French 75 gun.

### Cracking Plant

Part of the kerosene and gas-oil cuts and nearly all of the paraffin distillate, as well as the fuel oil bottoms produced by the two McKee atmospheric distilling units, will be cracked in two "Cross" units of 3,000 bbls. daily capacity each. Each of these two units will be capable of cracking either distillates or fuel oil and will be equipped with a combined absorption and stabilizing apparatus to recover all gasoline hydrocarbons and to produce a cracking gasoline of controlled vapor pressure. Treating and rerun losses will consequently be reduced.

The flow scheme of the cracking units, when handling distillates, is that of a modern Cross cracking plant of conventional design; when cracking fuel oil bottoms the reaction vessel is by-passed and the flow of oil through the furnace changed in such a manner that part of the convection bank tubes serve as a soaking coil.

Messrs. M. W. Kellogg & Co. of New York prepared the plans for these two units, which are being constructed by Cie. Technique des Petroles of Paris, and Compagnie de Fives-Lille. All the equipment of the cracking units, except the large reaction vessels and various special instruments, are of French origin.

### Redistilling Plant

The raw gasoline produced by the two Cross cracking units is acid treated and afterwards rerun in a two-stage redistilling plant of Foster Wheeler design. This unit operates without using a pipe still, utilizing the waste heat of residue from the cracking plants.

The charge is pumped through a series of heat exchangers, the last of which is

## French Company to Build Two Refineries

During the last few years, French legislation has been favoring the creation of a domestic oil refining industry, and as a consequence, a number of oil refineries are now being constructed.

After the war, the French government obtained an interest of 23.5 per cent in the Turkish Petroleum Co., which recently has been renamed "Iraq Petroleum Co.," and the whole of the French government's interest in this company has been handed over to "Compagnie Francaise des Petroles."

In order to facilitate the sale of oil products manufactured in France from Iraq crude, a French law has been passed which makes it compulsory for all oil companies trading in France to purchase part of their requirements from Compagnie Francaise des Petroles, which is thus assured of a market for its products.

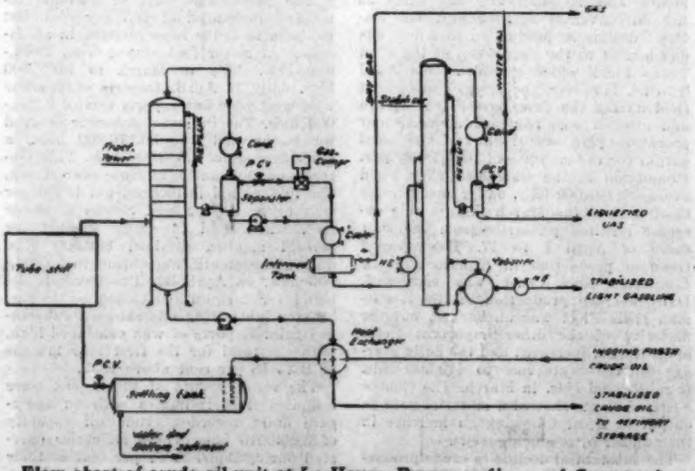
Its subsidiary, "Compagnie Francaise de Raffinage," will manufacture in two refineries oil products derived from more than 1,000,000 tons of Iraq crude oil per year. The location of the refineries being constructed had to be chosen carefully with a view to the centers of consumption. Due consideration had to be given to the question of transport facilities, as the proximity of a large harbor for sea-going tank steamers, also inland waterways for the distribution of the finished products and access to the main railroad systems were necessary.

The construction of two oil refineries was decided upon: one on the Mediterranean coast, which would take care of the requirements of the South of France, and one near the Atlantic Ocean, catering for the densely populated region of Paris, and for all the industrial areas of North and Northwest France.

The refinery in the south, which will be erected in the vicinity of Marseilles, will benefit by a short sea route from the Syrian ports from whence the Iraq crude oil will be shipped.

The refinery in the north is being built near Le Havre, and it possesses excellent transport facilities for coastal and inland shipments.

This refinery, to be known as the Normandy refinery, is nearing completion, and operation will start in a very short while. A description of the Normandy refinery, the larger of the two, is given herewith, and its distinctive features are specially mentioned.




*Flow chart of crude oil unit at Le Havre, France, refinery of Compagnie Francaise de Raffinage*

built as a film-type evaporator, and enters the atmospheric fractionating column at a temperature of approximately 140° C. All light fractions are flashed off and condensed to yield a light gasoline. From the bottom of the atmospheric tower the reduced charge flows through another film-type evaporator and enters the vacuum fractionating column at a temperature of approximately 140° C. A naphtha cut is produced, which is extracted from the vacuum receiving tank by means of a steam pump. The pressure distillate bottoms prior to being pumped to coolers and storage pass through a steam-heated reboiler from whence any gasoline fractions stripped off the bottoms are returned to the vacuum tower. The capacity of this plant is approximately 600 tons daily and somewhat larger than the expected production of cracking gasoline.

Messrs. Ste. Francaise de Construction Babcock & Wilcox, Paris, "Alsthom" of Belfort and Compagnie Alsacienne de Constructions Mecaniques are the actual manufacturers of the equipment for this redistilling plant for which the design has been prepared by Soc. An. Foster Wheeler.

### Gasoline Treating Plant

Modern, but convenient, equipment designed by McKee, and built by the engineering firm Schneider & Cie., will be used for the continuous treatment of gasoline. Straightrun gasoline will be plumbite treated. The raw gasoline from the two Cross cracking units will be acid and caustic treated and subjected to a final plumbite wash after redistillation. Three treating systems are thus being installed and each apparatus will have a working capacity of 600 tons daily = 5,000 bbls. daily of gasoline.

### Edeleanu Process

A large installation of the Edeleanu process will treat kerosene distillates by means of liquid $SO^2$. Compagnie Franraise de Raffinage will thus be enabled to produce a high grade kerosene from almost any kind of crude oil. This plant, designed by the "Comprimo" Co. of Amsterdam, is being built by "Societe Alsacienne de Constructions Mecaniques," and its extension with a view to handling lub oil distillates has been foreseen.

### Chemical Products

What may be considered a novelty is the installation of a central plant destined to store all chemical products, to prepare them for refinery use, and to deliver them to the various process installations at the proper concentration. It is expected that this plant will be easy to operate and that it will have many advantages for the refinery. Next to this plant will be an installation for handling the waste products of chemical treatment.

Sludge acid will be decomposed into weak acid and into waste oil which will be used as refinery fuel after being partly neutralized and mixed with ordinary fuel oil. Equipment for separating the acid sludge is being installed. Special gas scrubbers will wash all the vapors evolved during this process and therefore no noxious gases will be released into the atmosphere.

### Oil Storage and Pump Houses

Reservoirs of standard sizes were selected for the storage of the various products and located in such a manner that they are well isolated from the manufacturing sections of the refinery, but are nevertheless within near distance from their various installations. The standard sizes of tanks selected have a volume of 10,000 m.³, 5,000 m.³, 2,500 m.³, 1,000 m.³, 500 m.³ and 200 m.³, respectively, and there are actually 140 refinery tanks having a total storage capacity of 325,000 m³.

Pump houses serving for the transfer of products have been arranged at convenient points throughout the refinery, and all are equipped with pipe manifolds of an identical type.

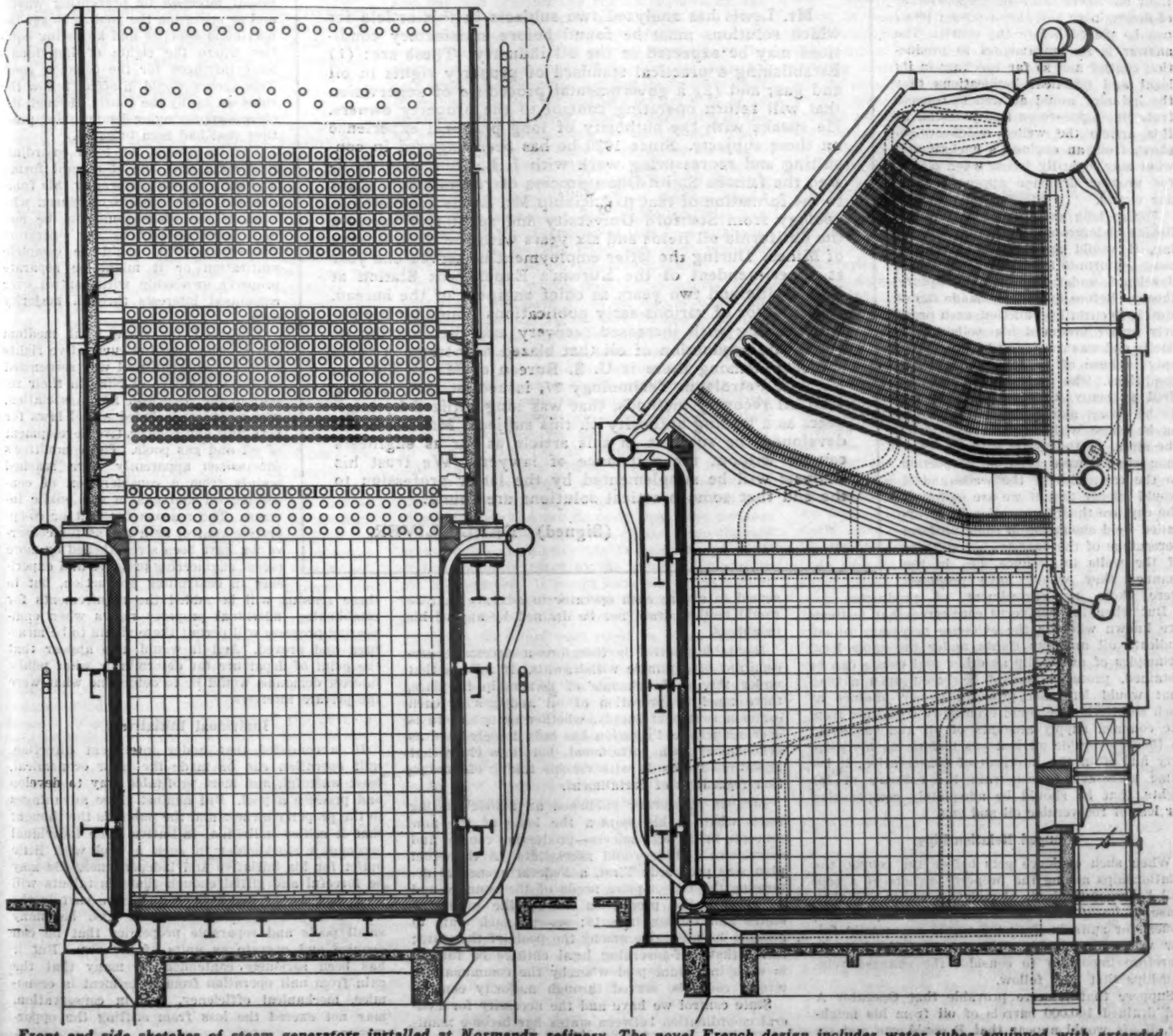
### Shipping Facilities

The products manufactured may be shipped by water, rail or road. A large wharf, adjacent to the Havre-Tancarville shipping canal and accessible for vessels of maximum 18-foot draught, has been constructed and has accommodation for four barges and one coast-going tanker, all of which can be loaded at the same time. Four railroad lines and two filling racks will permit the simultaneous filling of 24 tank cars, while several motor trucks may be charged at special loading posts. Powerful pumps and large filling lines permit the shipping of various products at the total rate of 1,000 tons an hour.

There has been provided a complete system of fire protection by means of two permanent "Foamite" stations connected to all important installations of the refinery, and by means of a mobile foam generator set mounted on a road truck.

A large hydrant system with some 70 fixed posts capable of supplying 9,000 liters of water per minute at 12 kg./cm.²

(Continued on Page 37)



*Front and side sketches of steam generators installed at Normandy refinery. The novel French design includes water tubes equipped with extended surface elements. Combustion gases flow through the boiler at a relatively high speed and in one pass only*

# A. I. M. E. Stabilization Forum, Article No. 5; Ownership Rights and Ownership Control

By JAMES O. LEWIS
Consulting Engineer, Tulsa.

The oil industry cannot expect to emerge from the turmoil in which it finds itself until the confusion regarding the nature of property rights in oil and gas is settled. The trend has been away from the law of capture and toward the principle of ownership of oil and gas in place but ownership in place or some legal equivalent cannot be put into practice until there is agreement upon the methods necessary for determining the equities under such ownership. Unless acceptable proof can be placed before the courts on underground movements of the oil and gas, there will be no way of enforcing equitable withdrawals and we must revert to the law of capture.

Which road the industry is to travel depends upon the engineers, for upon their shoulders falls the responsibility of determining how the necessary proof can be placed before the courts. The answer is so fundamental to production control and so far reaching in its legal and practical implications that the industry would do well to concentrate its engineers on this problem. In this article the writer endeavors to show, from an engineer's background, what may logically follow when means for proving drainage appears before our courts.

For so long as the means of establishing underground ownership is lacking, it would appear that proration must conform to the legalized practices developed under the law of capture theory. Before oversupply made it desirable to curtail production, each property owner produced his wells to capacity and was constrained by the state only because of waste or exceptional conditions. The property owner could drill as many wells on the property as he chose, and could operate them as he chose with few restrictions by the state. Withdrawals from the common supply were then in proportion to the capacities of the wells and it would appear that if we are to follow the capture theory, proration in a curtailed field should be in some uniform percentage of the unrestricted abilities of the wells to produce, i.e., in the manner they would have produced were there no curtailment of production.

But when the engineers can agree that methods are known whereby the evidence necessary to adjudicate oil and gas rights under the same legal principles of ownership as other real estate can be obtained, proration should be based upon a plan that would let each property owner produce at such a rate that he could eventually withdraw from the common supply amounts of oil and gas equal to the recoverable oil and gas underlying his property and if in the interests of conservation, it became necessary to constrain the exercise of his rights, that he should be adequately compensated for loss of recoverable oil and gas.

### Changed Relationships

When such evidence gets before the courts, the relationships among the property owners of a pool will be revolutionized. Correlative rights will then cease to be of academic interest and become live issues, for suits in drainage would necessarily follow where correlative rights were violated. It is therefore important to consider the changed relationships that may follow.

Suppose that it were provable that Operator A had drained 100,000 barrels of oil from his neighbor, B. It would appear that B could sue and recover from A, the value of the oil less expense. But if each operator were to be liable to his neighbor for draining his oil or to his royalty owner if he allowed his neighbor to drain his lease, it is obvious that he would never know whether he was incurring a liability to one or the other, unless he knew just what his neighbors were doing, and the complications which might ensue may be judged from the fact that the average lease will have eight neighbors. There would appear no escape from some form of control of the common source of supply, which could lay down rules of conduct designed to assure each operator in advance that he would neither drain nor be drained by any of his neighbors.

Equitable control is therefore a necessary concomitant of equitable withdrawals. It follows that under the legal principle of ownership in place, there must be proration of oil and gas in each common source of supply, whether or not there is overproduction. Proration has been loosely used as synonomous with curtailment, but it is clear that proration has to do with ratable taking of production regardless of curtailment.

In 1928 the writer published an article[1] setting forth what in his opinion the logic of the new concepts in the oil business—production control and correlative rights—would necessitate. A three-fold plan was proposed: First, a Federal agency to determine the consumptive needs of the country and to allocate the production among the producing states and foreign imports; second, each state to allocate its allowable among the pools of the state; third, that self-governing legal entities be formed in each important pool whereby the communal interests could be served through majority control.

State control we have and the necessity for Federal co-ordination between states has become manifest and is likely to be put into effect in the near future. In Yates and Hobbs Pools we have voluntary co-ordinating agencies, but it is doubtful whether such voluntary agreements will be adequate in other fields where property owners are more numerous and in times when the necessities for curtailment are not so imperative. It would appear that some legalized machinery for enforcing majority interests must logically follow.

The primary need for the local co-ordinating agency will be to work out and apply a plan for withdrawals, whereby each operator would know in advance how much oil he could produce without incurring either liability. It would also be necessary to protect the public and communal interests by preventing wastes and so operating the pool as to get the maximum benefits and adjusting equities where the rights of individuals were infringed for the common good. This agency would in effect follow the rules set up by the courts, through decisions approving or disapproving practices that had been litigated.

The machinery for local co-ordination could take one of several forms. The state is now performing this function but there appears no reason why most of the needs could not be met more satisfactorily by the operators themselves. This could be complete unitization or it might be separate property ownership with control over communal interests through majority vote.

The need for some legal medium for co-ordinating the cumulative rights in an oil and gas pool was recognized by the Committee of Nine in their report to the American Bar Association, which report[2] included model laws for both unit and co-operative development of oil and gas pools. The committee's conclusions apparently were reached mainly from a consideration of conserving oil and gas in the public interest. The reasons for unit or co-operative control as a means for conservation have been strengthened by more recent engineering progress and experience in controlling production, but to these reasons will be added the requirements for establishing individual property rights when engineering progress will permit these rights to be measured and proved. And it would also appear that the point of departure for determining what public interest demands, would be to determine what were the private interests.

### Individual Initiative

It is conceded that under intelligent direction, unit operation can be made the most economical, least wasteful, and most profitable way to develop and produce a pool. But against these advantages to the property owners and the public is the thought that it stifles individual initiative. The individual becomes a stockholder in such a pool with little outlet for his initiative and independence. He may be forceful and gifted enough that his talents will be recognized by being given an active part in the unit management, and there will also be many small pools and separable properties that he can acquire and operate as units of his own. But it has been seriously contended by many that the gain from unit operation from betterment in economies, mechanical efficiency, and in conservation, may not exceed the loss from stifling the oppor-

## Solutions as Basis for Satisfactory Conditions

**Mr. Lewis has analyzed two subjects in this article for which solutions must be found before satisfactory conditions may be expected in the oil industry. These are: (1) Establishing a practical standard of property rights in oil and gas; and (2) a governmental procedure of supervision that will return operating control to the property owners. He speaks with the authority of long practical experience on these subjects. Since 1920 he has been engaged in consulting and repressuring work with I. L. Dunn who initiated the famous Smith-Dunn process of repressuring. Prior to the formation of that partnership Mr. Lewis graduated in geology from Stanford University and spent five years in the California oil fields and six years with the U. S. Bureau of Mines. During the latter employment he served one year as superintendent of the Bureau's Experiment Station at Bartlesville and two years as chief engineer of the bureau. He is author of various early publications issued by the bureau dealing with increased recovery and the function of gas in the production of oil that blazed new trails in these subjects. Among these is U. S. Bureau of Mines Bulletin No. 148, Petroleum Technology 37, issued in 1917, dealing with oil recovery methods, that was long utilized by engineers as a leading authority on this subject. Mr. Lewis has developed the subjects in this article as far as engineers can go without the assistance of lawyers. We trust his analysis will be supplemented by the latter profession to the end that some practical solutions are found.**

**(Signed) EARL OLIVER.**

[1] National Petroleum News, February 1, 1928.

[2] Report of the Committee on Conservation of Mineral Resources of the Section of Mineral Law.

tunities for the development of the individual—that it would mean the small operator would be eliminated and all the oil business would be absorbed by the big companies.

These views are doubtless much exaggerated for in all lines of business it is becoming more and more apparent that the small and individual business cannot be driven out, that they have their place and that big business has limitations beyond which it cannot go. In recent years there has been about as much if not more property transferred from the big oil companies to small independents as from small operators to large companies. It is found that big companies can handle certain types of properties better than little companies and vice versa. The properties tend to gravitate to those who can handle them most profitably.

But regardless of individual opinions, it seems likely that unit operation will be exceptional for some time to come, and meanwhile there will be need for some machinery for co-ordinating operations in pools of divided ownership. This function the states have endeavored to fulfill and the results have not been satisfactory. There are of course some functions that the state must continue—that is, allocation of allowables among the pools during periods of oversupply and protection of the public interest by seeing that unnecessary wastes are not permitted. But in allocating the production between the property owners within the pools and adjusting their correlative rights, it would appear that the intervention of the state executives should be unnecessary, that these are questions of property rights arising between individuals that can be settled voluntarily between individuals, or if not by agreement, then they must finally be settled by suits in the courts.

### Period of Litigation

When evidence becomes obtainable, making possible proof of drainage with the reasonable and substantial accuracy demanded in courts of equity, it may be expected that there will follow a period of litigation during which the courts will pass down a series of decisions that will set up rules for adjudicating property rights under the principle of ownership in place. This period of litigation will come regardless of the industry's desires, just as similar periods have followed the enactment of important laws or when progress changes relationships in our social structure. For example, the passage of the Apex law profoundly affected property rights in mining and was followed by several years of litigation before the mining industry adapted itself to it. But in the end the courts rather than the states will decide how fields are to be prorated and how correlative rights are to be worked out among the operators in a common source of supply. It would be wise to foresee the problems that will arise and do all possible to ease the transition.

Under similar circumstances, society has evolved legal entities for local self-government in the common interest. A group of people interested in the same business enterprise voluntarily form a corporation for handling their joint affairs. People settle in a locality and their common interests demand that they form a city government for handling matters of local concern. In parts of the country irrigation and flood control has necessitated legal entities for handling the common interest. In these and other cases where the interaction of local conditions so affects the interests of all that no one concerned can act indifferently of the others, pressure of circumstances has forced the development of such legal entities acting on local matters and governed through majority vote but within the limits set by state and Federal laws.

An oil or gas pool is of essentially the same nature. It is a physical entity wherein nothing can be done that does not to some degree affect the interests of everyone owning a part of the pool. It would appear, therefore, that in line with precedence, a local legal entity corresponding to each physical entity would become desirable and in fact necessary so soon as science has matured sufficient knowledge of the interplay of rights underground. Such a legal entity would act under the authority of the state and within the limits set by public interests and the rights of individuals, it would lay down the rules necessary for orderly development and for carrying out the decisions of the courts whereby each property owner would be assured of recovering his share of the common supply or compensated in an adequate manner if it was found necessary to reduce his recoverable oil and gas in the common interests or for the public good. Within these limits, each property owner would operate independently, just as a man owns and operates a store in his town or a farmer his farm in an irrigation district. Certain rules would of necessity be compulsory, but the member property owners could voluntarily go as far beyond this minimum as they chose, and it is believed this would pave the way to complete unitization in many instances. The model laws of the Committee of Nine set up legal machinery for this purpose.

### Self-Governing Pools

These self-governing pools would merely follow and put into practice the rules laid down by the courts. They would obtain and give to each property owner the information necessary for operating within the law and each member would have the right for verifying such information. By majority vote they could determine how fast the pressure could be reduced and the oil and gas extracted to be of greatest common benefit. They would protect the majority rights from abuse by individuals. There would always be the right of appeal to the courts and at first frequent litigation might be expected but as rules and procedures were worked out and understood, it might be expected that operations would settle to routine with reasonable give and take on all sides. There would thus be a minimum of supervision by the state and most problems could be settled within the organization.

The steps by which such organizations could come about will have to be set out by state law. Whether communal rights have become recognized to the point that such laws could be passed now is for others to say. We know that the origin of production of oil in excess of demand at a fair price lies in an exceedingly small minority in a few flush pools, who are enabled to draw oil from under their neighbor's properties and destroy their neighbor's markets by means of this stolen oil, all because there is no adequate machinery for protecting communal rights. Though the engineers are not yet prepared to agree upon quantitative drainage, they are agreed upon the conditions that cause drainage and can agree at least upon methods for mitigating drainage. The courts seem disposed to recognize correlative rights and the principle of ownership in place to the extent they can be put into practice. It would seem that perhaps there is already sufficient foundation for passing laws giving considerable self control to each pool.

If each important pool could be given self government of communal interests through majority control, it is quite certain there would be a different situation from the present. Production control could be more readily obtained and destructive prices and practices could not be forced upon the whole pool by a few ignorant or selfish property owners. There would not be the opportunities for deliberate robbery by drainage, such as has gone on in East Texas, nor for waste of oil and gas, nor for irregular and destructive encroachment of water. Higher recoveries at lower cost could reasonably be expected from which the public would benefit as well as the property owners. Undoubtedly such co-operative pools would go far towards effecting conservation and would be justified in the public interest without regard to private equities.

### Conclusions

The primary purpose of this article is to direct attention to the pressing need for methods for determining equities in oil and gas pools. The industry is now in an untenable position. It is wavering between two opposed concepts of property rights in oil and gas. It has rejected the old law of capture as being merely legalized robbery, and it has adopted in principle ownership of oil and gas in place. But thus to conform property rights in practice to the fundamental law will require that the engineers agree upon methods for placing the necessary proof before the courts. At the present time there are widely varying opinions as to methods for determining these equities; consequently, no clear cut and satisfactory decisions can be expected from the courts nor adequate laws from our legislative bodies. The industry should require its engineers to investigate thoroughly all methods for determining equities, to reject those proposals that are unsound in principle and endeavor to agree upon a practicable method founded upon principles that can be demonstrated to be sound. The law waits upon the engineer.

But in working out this problem, the engineer needs guidance from the law. It needs to know the nature of proof that will be required. How accurately must drainage be determined and what will be considered adequate proof? It is also necessary that forethought be given to the consequences of this change in property rights that the industry may be prepared for it and that it may be guided through this transition period as wisely and expeditiously as possible.

### Ownership Rights

The litigation now in progress for determining the legal basis for ownership rights cannot be contemplated without serious misgivings. The present immaturity of engineering opinion on the technical questions involved has and will continue to place such conflicting evidence before the courts that it will be a miracle if they are guided to sound conclusions and once made, such incorrect decisions will afflict the industry for many years before they can be changed. It is evident that competent, authoritative and disinterested technical advice is needed, and it is suggested the industry could render no more constructive service to itself than to induce the Bureau of Mines to make this its immediate major problem. There is no doubt but that the bureau's findings would be accepted by all but a few financially interested or otherwise prejudiced parties and the very fact that such an investigation was under way would hold the doors open for later reconsideration by the courts of any policies set up meanwhile.

At first thought it might appear that the questions raised herein are of little immediate concern; that they are of academic interest, remote from our present problems of stabilizing the industry, but property rights are the foundation upon which all production control must be built and how can we expect to build a stable structure upon such an unstable base?

With these thoughts in mind, the writer has presented in this article one engineer's ideas of what may follow the application of ownership of oil and gas in place, and in collaboration with Harry F. Wright of Tulsa, he has advanced proposals for a proration plan set forth in a series of articles recently published in The Oil and Gas Journal.

## C. O. Stillman Reports International Activity

CHATHAM, Ontario, June 10.—In a recent report to shareholders of Imperial Oil, Ltd., President C. O. Stillman reviews the activities of the International Petroleum Co., the company's South American subsidiary, as follows:

"Production of crude oil in Colombia totaled (in 1932) 16,417,125 bbls., or 44,856 bbls. daily, compared with a total of 18,237,190 bbls., or a daily average of 49,965 bbls. in 1931. The potential production was greatly in excess of the crude oil produced and the curtailment was voluntary. Drilling was restricted to proven structures and consisted principally of completing wells to a shallow producing horizon and deepening older wells to lower productive sands. Thirty-two new wells were drilled; 26 of these were at Infantas and averaged initially 179 bbls. daily. Six were at La Cira and averaged 603 bbls. initially. Fifty-four wells were deepened with satisfactory results. The small amount of drilling involved in bringing in the shallow wells and deepening the older producers resulted in development of relatively low cost crude."

Total shipments of crude oil and products were 8,220,374 bbls. Of these shipments 44.2 per cent went to Europe, 37.6 per cent to South America and 17.2 per cent to Canada.

The Imperial and International fleets consist of 24 vessels of 180,863 deadweight tons. These modern tankers in 1932 transported 25,608,824 bbls. of crude oil and petroleum products.

During the year Imperial Oil, Ltd., inaugurated three important new policies: First, the marketing of other products than petroleum, such as tires, batteries, oil burners and motor car accessories; second, the inauguration of a five-day week to spread employment; and third, debt adjustment and interest reduction with payments over a five-year period adjusted on the basis of 70-cent wheat to aid the farmer.

# Loose Sand Fields Require Different Procedure in Prorating Than the Fields of Tight Sand

By JAMES O. LEWIS[1] and HARRY F. WRIGHT[2]
[1]Consulting Engineer, Tulsa, Okla. [2]Consulting Geologist and Engineer, Tulsa, Okla.

In three preceding articles, the writers have discussed prorating production by bottom hole pressures primarily from the standpoint of natural conditions similar to those found in the Oklahoma City Pool. The present article is directed toward fields with conditions similar to those found in the East Texas, Yates and Hobbs Pools. Though in principle, proration in all fields would be the same, in practice it will be necessary to modify the detailed procedures to take into account important local peculiarities. However, it is believed that so far as determining equities are concerned, pools can be separated into two types and two types of proration plans be adopted, and one or the other be applied to any field with but minor modifications for local differences.

The important distinctions between the two types of field are in the ease of flow through the reservoir rock and the source of pressure. In the plan proposed for fields of the Oklahoma City type the predominant force is the gas associated with the oil, and though the sand is for the most part very permeable and the oil itself highly fluid, the resistance to flow is such that adjustments in pressure require appreciable time, which will make it practical to prorate by bottom hole pressures without specifically introducing the acreage factor.

### Drainage Area and Property Lines

Essentially, the plan in a field where gas is the predominant expulsive force is to cause the drainage area underground to coincide with the property lines at the surface. Though it cannot be expected that exact coincidence can be effected, it is believed that in the main the drainage area underground can be kept substantially equal in area to the surface ownership. This drainage area marks the outlines of the highest pressures between the wells on the property and their offsets, and within the limits of this area the gas and oil flows inward to the wells on the property. So long as this condition can be maintained, the property is getting its share of the common supply, and it should be unnecessary to include an acreage factor in the formula because acreage is indirectly included by limiting drainage to the property itself or an approximately equivalent area. Also the property is to a limited extent a separate unit in the pool, walled off from its neighbors by the intermediate belt of high pressure, and within which the operator has considerable freedom of action and protection against the operations of his neighbors.

If the predominant force is not associated with the oil on the property itself, but originates off the property, this principle of control no longer holds. Such a field is East Texas, where the force so far has been predominantly hydraulic, the force being derived from the water pressure exerted from the western edge of the field. In this field, so little gas accumulated with the oil that all can be held in solution at pressures above 740 pounds so that until the oil is under a lesser pressure, the gas is as inactive as any of the fluid fractions of the oil, such as the kerosene, or gas-oil fractions. Under the conditions so far existing in East Texas, the pressures seldom reach as low as 740 pounds until after the oil has entered the casing so that the gas has had little effect on moving the oil through the sand, and the source of the energy for some properties has been transmitted several miles from the water edge across the intervening properties. Under these conditions a wall of high pressures cannot be built around each property, and the oil caused to flow inward from that drainage line.

### Depends Upon Rate of Production

Whether a field is under hydraulic or gas pressure control almost always depends upon the rate of production. With few exceptions oil and gas fields are outlain by water under pressures, but in all but the looser sands, the resistance to water movements through the sands does not permit the water to follow as fast as the oil and gas are withdrawn. Moreover the original gas pressure is equal to the hydrostatic pressure in all but the exceptional field, consequently any rate of production will reduce the pressures around the producing wells below the gas pressure so that the gas becomes the immediate force for moving the oil. Free gas separates out, thus breaking the flow of incompressible liquid between the well and the source of water pressure. This is true even in the most permeable sands where gas is equal to hydrostatic pressures. A further influence in retarding the water encroachment is that edge wells, as they go more and more to water, will remove the water as it encroaches, thus a balance is often reached between inflow and withdrawal of water and encroachment ceases or at least is greatly retarded.

### New Sources of Information

Curtailed production has given us new sources of information on this subject. In Hobbs it has been found that at present rates of withdrawals of oil and water, water does not advance as fast as oil is withdrawn, and consequently there is a spreading gas cap. This particular balance could be disturbed at different oil and water withdrawals or by wasting gas at the top of the structure. East Texas is peculiar in that all the gas goes into solution at less than half the original edgewater pressure. At a low enough rate of production, East Texas could be produced for its whole life under hydraulic flow. At a somewhat greater production rate, the eastern part would get down to a gas flow condition, whereas the parts nearer the water edge would continue under hydraulic flow. At the recent rates of production it may be expected that in a comparatively short time all but the extreme west edge will be under gas flow conditions.

Another difference in condition that necessitates a different proration plan is the extreme rapidity with which pressure adjusts itself through such permeable sands as are found in East Texas. Even though the source of energy were primarily from the gas associated with the oil under each property, the plan proposed for tighter sand fields probably would not operate satisfactorily. In the previous plan, it was assumed that it would take an appreciable time for pressures to adjust between adjacent wells so that by taking pressures at reasonable intervals of 60 to 90 days, over or underproduction could be detected and corrected. To make such a plan effective means that in a pool of more rapid adjustment of pressures, the interval between test periods must be lessened and it is doubtful whether it would be practical to take pressures frequently enough in fields with such rapid movement as East Texas. This condition was formerly intensified by the former extreme degree of curtailment. With the present larger allowables, the pressure differentials necessary to flow the oil to the wells are greater and it takes longer for adjustments, and departures from the allowables are easier to detect. The pressure drop when the field was producing between 300,000 and 400,000 bbls. was only about 20 pounds to the mile from west to east, or 2½ pounds between each 10-acre location. For the closely drilled parts pressure differentials were even less, although when the wells are actually producing, local drops in pressure are caused around each well.

### Alternative Plans Discussed

Before presenting a plan for prorating East Texas, Yates, Hobbs and other fields where pressures equalize so rapidly or where the pressure is predominantly of hydraulic origin, the writers wish to discuss alternative plans that have been proposed. In considering such plans it is assumed that equities are to be based upon the ownership of the recoverable reserves underlying each tract, and the proration plan should be directed toward assuring each property owner the recovery of his reserve. The plan must also be practicable in application.

Proration on a flat well basis is obviously inequitable and has been so adjudged by the Federal courts. Proration by acreage alone is also inequitable because the reserves per acre obviously differ widely in a field where sand thickness may be nearly 100 feet in one part and less than 5 feet in another. A combination of wells and acreage would afford little improvement. The recent order prorating on potentials is obviously inequitable if equities are to be based upon the recoverable reserves underlying a property, because the allowable would be based upon how many holes had been drilled into the reserve rather than the volume of the reserve itself. Under this plan a well on one acre would be given as much oil as a well on a 10 or even 40-acre tract, although the original reserves per acre might be no more.

Combining acreage with potentials would greatly lessen the inequities and this plan has been used in Yates and Hobbs Pools. It is, however, not fully equitable and the taking of potentials has led to difficulties and abuses in the fields where they have been used.

The assumption in using potentials is that they are proportional to reserves per acre, whereas it has long been known this does not follow. This has been established by the many thousands of production curves that have been plotted that show that two wells of the same daily production do not have the same ultimate recovery, unless all other conditions are the same. A 1,000-bbl. well in California may recover ultimately 100 times as much as a 1,000-bbl. well in such fields as Bowling Green, Kentucky. Even in East Texas where all factors other than sand thickness are exceptionally uniform, the decline of wells of the same potentials would not be the same. This is indicated by the recent tests as analyzed by Hudnall* who shows that some wells declined

*Hudnall, J. S., Oil Weekly, May 1, 1933.

(Continued on Page 41)

# Interesting Exhibition at Chicago Shows Great Advances Made in Telephony

CHICAGO, June 10.—Under the auspices of the American Telephone & Telegraph Co. and the direction of Dr. Sergius P. Grace an exhibit has been prepared by the Bell Telephone Laboratories which is one of the most striking demonstrations at A Century of Progress Exposition. Contrasting the Centennial Exposition of 1876 and the World's Fair of 1893, it is shown that, although the telephone which was just invented by Alexander Graham Bell, was exhibited, it was done in a very small space in the Exposition Building where two telephones were set up a few yards apart. With these instruments visitors could carry on conversations over a short length of line. At A Century of Progress Exposition space permits illustration, by exhibits of apparatus, of only a few of the services which have since been made available. Visitors, although already accustomed to telephony, will find that hours are required to learn of the various communication services made possible today by the types of equipment exhibited. It is demonstrated that nationwide telephone service is available by allowing visitors to take part in telephone conversations. A large map shows one or more important cities in every state in the union. A visitor may call a friend in any of these cities and on the map a streak of light shows the progress of his call. How this service is given is demonstrated not only to the single visitor who places one of the demonstration calls but to other visitors who may listen to the mechanical end of placing a call through head receivers arranged along a shelf beneath the map.

At stations every 100 miles or so along the line, vacuum-tube telephone repeaters amplify the voice currents. How these tubes operate can be seen at another part of the exhibit where it is made evident how the motions of the tiny electrons do the job. Also it is shown that although radio telephone messages can be picked up by anyone with a proper receiver, the ones coming from the Bell Telephone system stations are not intelligible. As they are sent out the speech components are inverted so that they give rise to an unintelligible jargon and as they are received they are reinverted so that they become completely intelligible. How this speech sounds and how it is inverted and reinverted is illustrated in another exhibit. In another continually operating exhibit which fills a whole bay on the second floor of the Communication Building visitors can see how dial switchboards operate under heavy loads of messages with striking reliability. In another nearby exhibit an operator's position has been set up to show how connections are made between teletypewriters. On the floor below, two of these machines are set up and the many services they offer are illustrated. For those who are interested in the magic of communication there are other exhibits that should be heard to be fully appreciated. Among them are "Acoustical Illusions," "Electrical Echo," "Delayed Speech," "Binaural Listening."

The whole exhibit has been placed in the Communication Building. Doctor Grace, in addition to being in charge of this exhibit of the Bell system, is the executive representative of the American Telephone & Telegraph Co. at A Century of Progress Exposition.

# Tomball Field, in Texas, Is Ideally Situated for Development and Immediate Crude Market

By NEIL WILLIAMS

HOUSTON, Tex., June 12.—It isn't customary for Gulf Coast operators to open new fields in the more easily accessible spots. In most instances they put them down in some swamp or bog, out in some lake, bay or other body of water, of which there are plenty down here, or even in the Gulf of Mexico itself such as some of the fields the Texas Co. is developing along the marsh land coast of Terrebonne Parish, Louisiana.

To the contrary, whoever picked out Tomball for an oil field did a good job of it if he had in mind convenience and desirable location. In fact, an orthodox Gulf Coast oil man may feel a little out of place there. It may be a little too soft going for him and possibly spoil him for the usual hardships he is called upon to undergo in exploration for oil. Few are the fields on the coast whose openings have not presented some handicaps and problems of access and development.

The location and conditions at Tomball probably are about as ideal as could be expected to facilitate development and operation. Unless production spreads a great distance from the discovery well, the field will occupy comparatively high and dry land in a cultivated farming section. It is on a paved highway to Houston, only 25 miles distant, and good, all-weather roads extend through the area. It adjoins and may take in the townsite of Tomball, a small but progressive farm community, on the Trinity & Brazos Valley Railroad.

### Ideally Situated

If a major field is proved up, it will hold a strategic position. It is close to the large coastal tank farms, refineries, shipping terminals and markets. Three trunk pipe line systems pass through or near the area. Stanolind Pipe Line Co.'s main line is directly through the field and one of the company's main pumping stations is at Huffsmith, which adjoins Tomball (it is hoped that it isn't a leak from this company's line or from one of its storage tanks which is supplying the discovery well). Humble Pipe Line Co.'s Conroe line is within 13 miles of the discovery well and a feeder already is being put in. This company's trunk line from North Texas to the coast also is not much farther, the Conroe branch making connection with it at Satsuma. The Texas Pipe Line Co.'s trunk line also passes through the northern portion of the district. The distance to Houston, the Houston Ship Channel and tidewater is so short that additional pipe line outlet could be provided easily.

What Tomball is is anybody's guess at this time. The discovery well, Magnolia Petroleum Co. and Humble Oil & Refining Co.'s No. 1 Kobs, completed May 28, is the only producer and except for the fact that it is producing from the Cockfield, the same horizon as Conroe, 20 miles to the northeast, very little of a definite nature is known. The performance of the discovery well has indicated that a field of considerable importance exists there and general assumption is that the field is of the Conroe type.

*Main street of Tomball, formerly an inactive farm settlement of a few hundred population, which has been transformed into a busy oil town. The townsite is in the heart of the play*

As to producing conditions expected, the cores of the producing sand in the discovery well were reported as being "perfect Conroe cores," and so much so that drill stem tests were dispensed with, a procedure unusual in modern coastal wildcat developments. Similar to Conroe, the sand has a high porosity, is extremely permeable and consequently a high recovery is anticipated. The sand is a little deeper than at Conroe, being at 5,500-5,600 feet as compared to 5,100 feet at Conroe, the difference being due to the down dip location of Tomball. The knowledge gained at Conroe is expected to facilitate the development and production practices at Tomball.

The setting of casing on the sand in the discovery well without the making of drill stem tests to determine the possibilities of the sand and whether it was worth while to gamble a 5,500-foot string of 7-inch casing is another indication of the sureness with which Tomball has been taken. Almost from the start of the general lease and royalty activity dating back to late last year the area has been played for a proven field of large extent with proven acreage valuation being placed on the land. That there also was no uncertainty regarding the ability of the discovery well to produce was shown in the fact the operators lost no time in tearing down the rig and derrick. On wildcat wells, derricks usually are left up for a time but in this case within five days after completion of the well nothing was left on the location except the Christmas tree, a separator and two flow tanks, the derrick and machinery having been moved to another location a mile distant where drilling operations now are under way.

### Geophysical Discovery

The discovery of oil at Tomball is a victory for geophysics, and the judgment of those in the former Vacuum Oil Co. (now a part of the Magnolia Petroleum Co.) who in 1929 looked with favor upon the area and leased a block of approximately 10,000 acres following a torsion balance survey and shooting of the area with seismograph. More recent geophysical work by nearly all the larger companies also have borne out the findings of the early geophysical indications although work done by Humble Oil & Refining Co. caused that company to block approximately 9,000 acres to the south and southeast of the Magnolia Petroleum Co.'s block. Humble more recently purchased an undivided half interest from Magnolia in the latter's 10,000-acre block, on which the two companies are starting joint development.

### The Drill Must Tell

As previously mentioned there is no definite way of determining without further development just what structural or geological conditions prevail at Tomball. Geophysics have indicated a deeply seated salt dome or mass. Aerial pictures also show what appears to be evidence of the existence of a salt dome. In these pictures is a "bald" clearly outlined oval sticking up above the surrounding country with general features characteristic of the producing salt domes of the coast. The area shown in these pictures, however, appears to be comparatively small and does not bear out the ideas prevailing as to the extent of possible producing territory. In the lease play an area extending over at least 20 to 25 square miles in northern Harris and southern Montgomery Counties was taken in although several deep dry holes drilled during this play have served to condemn part of the district.

What connection the present Tomball discovery has with Indian Hill Oil Co.'s No. 1 Schweinle, William White Survey, a wildcat 10 miles northeast of the Magnolia-Kobs producer, which encountered important gas showings in a drill stem test in the same horizon in a broken formation at 5,514-80 feet, now is causing considerable speculation. That wildcat was the first drilled in the area and the showings created the incentive for the active lease and royalty play. No effort was made to complete a well and the hole was deepened to 6,143 feet and abandoned. Following that the drilling by Mills Bennett Production Co. of a deep dry hole on the Klepple tract in the March Survey some 3 miles southwest of the Indian Hill well and between it and the present Magnolia-Humble discovery, cooled things off in that area and with the drilling of several other dry holes to the north in Montgomery County interest became directed to the Magnolia and Humble blocks to the southwest and acreage in and around them became played for unheard-of wildcat prices.

Within the past week, however, a wildcat being drilled by H. H. Sloan, located

*Drilling crew of H. H. Sloan's No. 1 Peden, a much watched Tomball wildcat. Left to right: Lee Mahon (driller), H. H. Sloan (owner and operator), John Stewart, A. D. Sutton, Charles Phillips, Jess Orchid*

*Crew on Magnolia Petroleum Co.'s No. 1 Kobs, Tomball discovery well. Left to right: W. H. Ferrell, Jess Novill, Jick Thompson, A. O. Ross, John T. Wooten, Earl E. Rogers (driller), and Goldie S. Wilke, (Supt.)*

in the Peden tract in the John Brock Survey, a little over 2½ miles to the southeast of the Indian Hill well, has been checked as running very favorably. Although normally, according to the difference in dip, it would be approximately

*H. H. Sloan's No. 1 Peden, drilling wildcat in Tomball district located six miles east of Magnolia Petroleum Co.'s discovery well*

200 feet lower than the other wildcat, it actually is only 27 feet lower, indicating an uplift there. Consequently interest has shifted back to that area and a new leasing and royalty play has started up extending eastward from these wells.

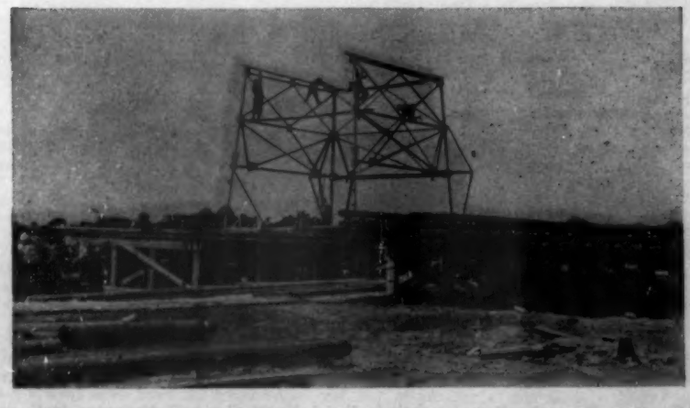
That this area and the immediate Tomball Field, where Magnolia and Humble have completed their discovery well, may be one large field with a synclinal condition protruding up between them where Mills Bennett Production Co. drilled its dry hole is extremely possible but prevailing theories now are that these are separate "noses," or high spots along an old buried shore line. This old shore line trend has been the basis of the greater part of the active leasing and exploration play which has been going on in the Gulf Coast the past year. It is on this trend that Conroe, in Montgomery County; Livingston, in Polk County; Garwood, in Colorado County, and other such fields are located, and it has been assumed that along this trend there are other places where noses, uplifts or other structural conditions are conducive to the trapping of oil, and the play has been directed at finding them. Conditions at Conroe give evidence of a very deeply seated salt mass which has pushed up the overlying formations into a large dome-shaped structure. There has not been sufficient drilling in the other areas to give an idea of what structural conditions exist in them. That the Tomball and Indian Hill areas may be the result of a major fault is not impossible.

### Active Development Assured

In view of the importance which has been attached to the entire district, the high valuations placed on acreage and royalties, and numerous lease drilling obligations, active development program is assured, and it is probable the physical features of these two areas will be determined comparatively soon. It is anticipated there will be a more rapid drilling up of acreage than in the Conroe Field. If production is confined to the immediate Tomball area, the field may be pretty well controlled as the greater part of the acreage is owned by Magnolia and Humble although Stanolind Oil & Gas Co. has substantial holdings as well as the Texas Co. and Sun Oil Co. However, there are a large number of small tracts and the Tomball Townsite itself may be in the play. To forestall any possible unnecessary drilling with a view to eliminating fire and blowout hazards, the Railroad Commission has restricted drilling, providing that no well shall be closer than 933 feet to another nor less than 466 feet from a property line. Outside of the Tomball vicinity, the ownership is pretty well diversified, and if the Sloan well, mentioned above as running very favorably, should make a well there no doubt would follow a drilling play not experienced on the Gulf Coast since the early boom days of Spindletop, Humble and such fields.

On the joint Magnolia-Humble block just west of the Tomball Townsite, those companies seem to be making preparations for an extensive, yet systematic and conservative, development program. Both these companies will operate simultaneously, sharing equally in the costs and returns. Magnolia will develop the acreage located north of the south line of the Joseph House Survey, while Humble will stay south of that line.

*Pumping station on Stanolind Pipe Line Co.'s trunk line to the coast at Huffsmith, adjoining the Tomball Field*



*No time was lost in tearing down the derrick of the discovery well of Tomball. Four days after completion of the well only the christmas tree stood to mark the spot*

## No Separate Control for Petroleum Industry

(Continued from Page 9)

plan, will be followed by an organization meeting on June 26. The committee is to have at least 30 members.

The purpose of the committee, Mr. Roper said, would be "to co-ordinate the thinking and acting of the best minds of industry for guidance of the Secretary of Commerce."

It was described as likely to be similar to the Committee on Recent Economic Changes in the United States, set up by Herbert Hoover when Secretary of Commerce.

The proposal was first made by Mr. Roper at the convention of the U. S. Chamber of Commerce. The committee as now planned will be entirely apart from the Industrial Control Administration, headed by Gen. Hugh S. Johnson, except in so far as it might be called upon for advice and assistance. For this purpose there might be a "connecting committe," Mr. Roper said.

In this connection it is reported that W. C. Teagle, president of the Standard Oil Co. (New Jersey), probably will be a member of the Industrial Control Board, although Mr. Teagle has not definitely accepted.

### GAS AT THE WORLD'S FAIR

The Chicago Fair is going in for gas in a big way. Facilities for feeding an estimated daily attendance of 200,000 persons are well advanced and gas fuel will be used for cooking, baking, water heating, space heating and incineration. Restaurants, large and small, sandwich shops, potato chip counters, hot dog stands, coffee and doughnut dispensers, rotisseries, cafeterias—all will use gas fuel. Everything from grilled breast of guinea hen to a fried egg will be done to a turn over a gas flame.

Two of the largest eating places, with a combined capacity of 27,500 diners daily, will have completely equipped gas kitchens. They will consist of eight-section ranges, stock kettle, vegetable steamers, griddles, bake ovens, steam tables, coffee urns, instantaneous hot water heaters and space heaters.

### CANADIAN PIPE LINE CONTRACT

CHATHAM, Ontario, June 10.—Contract has been let for between 3 and 4 miles of natural gas line to deliver production from the Olga Oil & Gas Co. wells in Raleigh Township, Kent County, Ontario, to the Southern Ontario Gas Co. main transmission line. Construction will be completed this month. The Olga company has several gassers in the Raleigh area with an aggregate open flow rated around 2,500,000 feet a day, and it is possible additional wells will be drilled.

## Wells Completed in May About the Same as in Month Before

In completed wells and new field operations in May there was little difference, compared with the April record. There were six more wells completed in May, and the close of the month saw 54 fewer wells on the drilling list, but an increase of 26 in new rigs up, making a net decline of 28 in total drilling. Following is the summary for May:

MAY FIELD OPERATIONS

Summary of Completed Work

| Field— | Comp. | Prod. | Dry | Gas |
|---|---|---|---|---|
| Eastern | 74 | 302 | 13 | 16 |
| Central Ohio | 14 | 30 | 4 | 8 |
| Lima | 6 | 462 | 0 | 1 |
| Indiana | 7 | 38 | 0 | 5 |
| Michigan | 22 | 5,100 | 3 | 5 |
| Kentucky | 13 | 280 | 9 | 0 |
| Alabama | 1 | 0 | 1 | 0 |
| Kansas | 30 | 16,889 | 17 | 2 |
| Oklahoma | 98 | 22,339 | 36 | 8 |
| N. Cent. Texas | 78 | 766 | 52 | 4 |
| East Texas | 125 | 7,891 | 22 | 0 |
| West Texas | 11 | 668 | 3 | 0 |
| Tex. Panhandle | 17 | 1,907 | 1 | 5 |
| S. W. Texas | 59 | 3,988 | 33 | 3 |
| Texas Gulf | 112 | 120,894 | 22 | 1 |
| Louisiana Gulf | 17 | 8,535 | 8 | 1 |
| N. Louisiana | 37 | 1,310 | 26 | 3 |
| East Tex. Gas | 4 | 0 | 4 | 0 |
| Arkansas | 6 | 150 | 5 | 0 |
| Mississippi | 3 | 0 | 1 | 2 |
| New Mexico | 8 | 14,030 | 2 | 0 |
| Wyoming | 4 | 50 | 1 | 1 |
| Montana | 2 | 195 | 0 | 0 |
| Total May | 753 | 205,826 | 268 | 60 |
| Total April | 747 | 266,162 | 241 | 48 |
| Difference | 6 | 60,336 | 27 | 12 |

Summary of Work Under Way

| Field— | Rigs | Drlg. | Ttl. |
|---|---|---|---|
| Eastern | 52 | 126 | 178 |
| Central Ohio | 24 | 61 | 85 |
| Lima | 2 | 20 | 22 |
| Indiana | 1 | 57 | 58 |
| Michigan | 47 | 71 | 118 |
| Kentucky | 2 | 51 | 53 |
| Illinois | 1 | 11 | 12 |
| Kansas | 22 | 108 | 130 |
| Oklahoma | 78 | 276 | 355 |
| East Texas | 47 | 118 | 165 |
| West Texas | 19 | 99 | 118 |
| Texas Panhandle | 12 | 37 | 49 |
| North Cent. Texas | 25 | 113 | 138 |
| S. W. Texas | 26 | 136 | 162 |
| Texas Gulf | 11 | 112 | 123 |
| Louisiana Gulf | 7 | 34 | 41 |
| N. Louisiana | 68 | 70 | 138 |
| Arkansas | 11 | 32 | 43 |
| Mississippi | 6 | 14 | 20 |
| Alabama | 0 | 4 | 4 |
| East Texas Gas | 1 | 14 | 15 |
| Montana | 4 | 34 | 38 |
| Utah | 1 | 15 | 16 |
| Wyoming | 12 | 57 | 69 |
| Colorado | 5 | 56 | 61 |
| New Mexico | 5 | 46 | 51 |
| Total May | 490 | 1,772 | 2,262 |
| Total April | 464 | 1,626 | 2,290 |
| Difference | 26 | 54 | 28 |

## Proposed Cut Bank Line Is to Await Development

DENVER, Colo., June 13.—R. C. Tarrant has had engineers figuring on a 5 or 6-mile line to Cut Bank with talk of continuing it to Coutts, Canada, but an officer of the Maple Leaf refinery at Coutts says no contract has been made for the purchase of Cut Bank crude in quantities to justify a line and apparently this and other rumored pipe line projects will not materialize until the field demonstrates stability and size of wells. Mr. Tarrant has been selling some oil to various purchasers and this is trucked to Cut Bank and the Maple Leaf refinery is also trucking some from the Alberta Pacific wells to Coutts. None of the proposed pipe lines is expected to materialize until the field is further developed according to best information available here.

### R. R. SUTHERLAND DIES

SHREVEPORT, La., June 12.—Funeral services for R. R. Sutherland, 75 year old, treasurer of the W. G. Strange Oil Co., of Shreveport, were held from his late residence June 10. The Strange Oil Co. was one of the early and active developers of the Bull Bayou Field in Red River Parish when the Homer boom was on in 1919-21.

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# An Unparalleled Experiment

American industry, including oil, is entering upon an unparalleled experiment. It may work, or it may not, but the excuse is that we had to get off the dead center somehow.

We waited three years and a half for the situation to right itself as such situations did in the past but the old system seemed to have lost its recuperative power.

The recourse to governmental stimulants during the previous administration fostered an appetite which inevitably grew greater. At the same time, in an unstable world where standards and values were adrift, it was natural for the American people with their unshaken faith in representative government to look to it as the sole anchorage.

Industry at large, like the oil industry itself, has been hampered in its efforts towards recovery by inherent weaknesses which have sapped its strength.

The price cutter and the industrial racketeer have reduced all competition to mere cheapness. They have made it increasingly difficult, if not impossible, for the great majority in any industry or business to earn a return on its products. Their policy has at the same time lowered the standard of living by sweatshop competition.

When the antitrust laws were framed they were designed to protect the public from extortionate prices. Competition was to see to that. But unbridled competition has proved as dangerous as imagined monopoly and today the people need to be protected from below-cost prices that rob the producer, bankrupt legitimate business and impoverish the country.

Industry, prevented by the antitrust laws from making common effort to remedy this situation, hopes that government aid, offered in the industry recovery measure, will be able to cope with it.

The oil industry, baffled in its efforts for stabilization by an obstinate minority and political obstruction in the states, is ready to try Federal supervision.

A conference of representatives of oil associations will meet at Chicago this week to frame a code of fair practices for the producing branch. Another conference will be held to formulate a code for the refining and marketing divisions.

These codes will be presented under the recovery measure as a governing basis for the branches of the industry. If approved by the President they will become a standard which all engaged in the industry must respect.

The antitrust statutes will be suspended long enough to allow these conferences within the industries to frame such codes and, if approved, to try them out.

If a recalcitrant minority refuses to obey the code when approved it will be unable to engage in the industry until it accepts the code and obtains a license from the government.

If this apparently simple program works the supposition is that each industry will be self-governing, formulating its own standards of fair practices, which are to be enforced by Federal authority.

If industry sincerely attempts to apply the self-governing provisions of the measure, and aided by the suspension of the antitrust law prohibitions, determines to go ahead on a sane program regardless of undermining competitors who will be dealt with by the government, we may get somewhere.

The crucial test will, of course, come in the framing of these codes and their acceptance, first, by the majority of the industry, and then by the President.

Considering the variety of opinions, often sharply conflicting, which prevail in most industries, this formulation of codes is going to be a delicate, not to say, difficult task.

It may be facilitated, however, by the conviction that nothing better seems to be in sight and the further inquiry what will happen if this scheme is not given a fair trial.

It may be imagined one point that will be heard repeatedly is that it is all very well to have a minimum price fixed below which it will be unlawful to operate but the supervision which guards against a price too low will also be there to limit prices when they start upward.

It will be asked, in the case of oil, for instance, what will happen, if there is a shortage of crude, will the price be kept so low that it will check the necessary search for new production? Will Federal authority recognize the unusual risks of wildcatting and allow a fair compensation for exceptional hazard of investment?

Considering the present oversupply this seems like borrowing trouble from a distance. Besides, the whole measure is for a limited term and if by the expiration of that term industry and business are again back on their feet there will be an inevitable demand for revision.

On the other hand, there is the possibility, however remote it may be thought by some, that the scheme will actually work and everybody, or almost everybody, will insist on keeping it.

It is frankly an emergency experiment, although some of its sponsors may have visioned a new heaven and a new earth. Nothing like it has ever been tried. It is not the communism of the Soviets despite the jibe about its being "translated from the Russian." It is not state socialism, although government supervision of industry has never gone so far even under European socialist administrations.

It provides a check rein for the individual which he is asked to put on for the common good with assurance that those who refuse will have it forced on them also. The aim is to have industry and business conducted within a profitable range which shall avoid both below cost prices for the producer and excessively high prices for the consumer.

But to attain this there must be planned operations, restricting production to demand, which is exactly what the oil industry has been struggling for over a decade. Voluntary restriction has failed because of the inability to eliminate cheaters and open obstructionists.

It may be hoped that we are not on the verge of an era of "bootleg" industry. If we are it will be up to each industry to give the government the most vigilant and active assistance in coping with such racketeers. The government could not be expected to maintain such an army of enforcement officers as would be required to police American industry.

As one Republican senator who voted for it said: "How do we know the blamed thing won't work?" We don't. Neither do we know it will work. But let us hope that it will and that out of it may come developments that will point the way to actual recovery.

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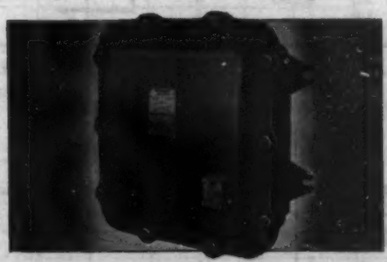

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# Rapid Upturn in Oklahoma Gasoline Quotations With Strong Markets in Other Products

By C. O. WILLSON

Prices moved sharply upward the past week in the Oklahoma (Group 3) refinery market. Price strength was most apparent in all grades of gasolines but quotations in other products were either firm or advancing.

The upturn in gasoline quotations gained momentum rapidly the latter part of last week as more and more sellers advanced their prices to the point where in effect they were out of the spot market. Buying at the same time was more active and included among the purchasers were a number of small and large refiners who were desirous of supplementing their own output with outside purchases. By late Tuesday the low price on the third grade U. S. Motor gasoline had advanced to 2¾ cents with 3 cents the low on the middle bracket material and 3¼ cents for the upper bracket. This represented a general advance of more than one-half cent per gallon for the week.

The withdrawal from the market by several small refiners tended to limit the quantities of kerosene and distillates available in the Mid-Continent and prices in Oklahoma were from one-eighth to one-fourth cent higher than they were a week ago. The same situation applied to gas oils and industrial fuels the former being one-eighth cent higher with 2½ to 5 cents per barrel advances in several grades of fuel oils. The week's advances included special and blending naphthas. Lubricants were firm and 124-126 crude scale wax in Oklahoma advanced to a low of 2¼ cents per pound. Many inquiries for wax were reported.

### Causes of Advance

The two immediate causes of the higher gasoline quotations were an expectation of an immediate advance in posted crude oil schedules and improved buying due in part to the desire to secure shipments before the additional one-half cent Federal tax became effective. The gradual tightening in the crude oil market over the past month which has resulted in the payment of premiums in many producing areas of the Mid-Continent, coupled with the expectation that the large flush production in East Texas will be curtailed before the end of the week had led to the general expectation that large and small purchasers will find it expedient to advance posted quotations. To this development can be added a general optimism that the industry through conferences to start this week will adopt codes of practices with the support of the Federal Government which will be reflected in more stable conditions of a permanent nature extending from the production of crude oil to the sale of gasoline at service stations. The oil business is notorious for its ability to shift quickly from extreme pessimism to supreme optimism and the developments of the past two weeks reflect this condition.

When it became apparent late in May that the oil industry was to be burdened with an additional Federal excise tax on gasoline, buying started to improve and over the past 10 days this type of business has been conspicuous. When the first Federal tax of 1-cent became effective a year ago many marketing organizations and jobbers bought heavily before the date on which the tax became effective. The tax was a levy on manufacturers and any gasoline sold to distributing companies and en route before the effective date was not subject to the tax.

Many refiners and distributors have sought to take advantage of a similar situation in the new tax of one-half cent. At this writing it was not definitely known just when the additional tax would be effective but it was assumed that it would not be later than Thursday. There were some differences of opinion in the trade as to whether or not all gasoline shipped from refineries to distributing organizations previous to the effective date of the one-half cent levy would be tax exempt in the same manner that it was a year ago. This matter will not be cleared up until there is a definite ruling from the revenue department and in the meanwhile many buyers are proceeding under the belief that any gasoline actually bought from refineries and shipped previous to effective date would be exempt.

### Future Trends

Aside from the new Federal tax many buyers are confident that the gasoline tank car market is headed for higher levels and they were anxious to buy in expectation of further price increases before the end of the month. Many were endeavoring to obtain flat prices for delivery over the last half of June and any business of this kind presumably will be subject to the half-cent tax. As usual under conditions as now prevail sellers were not anxious to accept orders for future delivery at current quotations

## Refined Market Barometer

Changes in refinery tank car prices largely centered in the Mid-Continent over the past week. A reluctance on the part of refiners to sell in expectation of higher prices to follow crude oil price advances resulted in a rapid upturn in Mid-Continent quotations, the increases ranging from one-half to three-quarters cent per gallon for the week. The same situation applied to natural gasolines. Most of the other refinery products in the Mid-Continent were quoted at slightly higher levels. In other areas markets generally were steady but no outstanding price advances had materialized.

**Mid-Continent**—Rapid advances in refinery gasolines and natural gasolines. Kerosene and distillates strong and prices slightly higher. Fuels and gas oils firm or advancing. Lubricants firm. Wax prices higher.

**East Coast**—Markets marking time awaiting developments in crude oil situation. No important price changes.

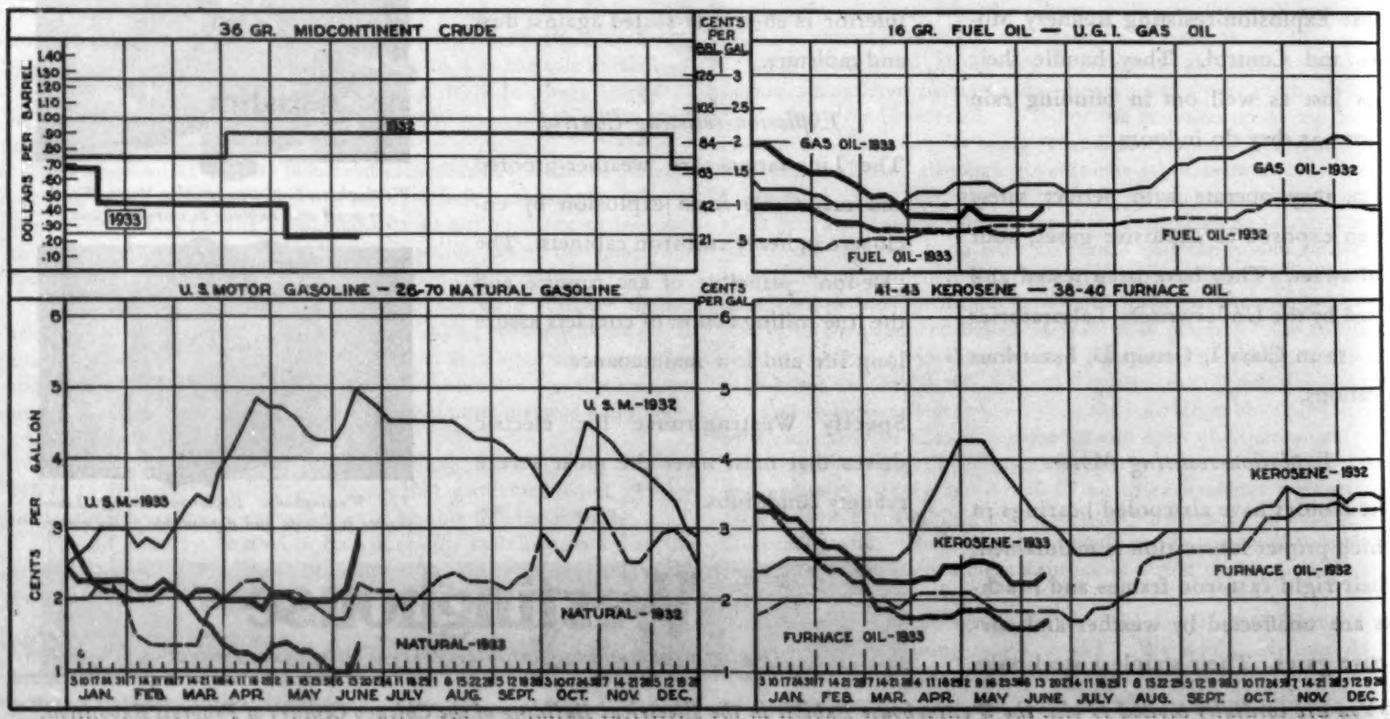
**Chicago**—General advance in all the principal refinery products led by gasolines and naphthas.

**Pennsylvania**—Better demand for lubricants and prices firm. More inquiries for gasoline and kerosene.

**Gulf Coast**—Gasoline prices for domestic movement higher. Fuel and gas oils steady.

**California**—Fuel oil market stronger, resulting in higher prices by those who have been quoting under general market. No change in gasoline.

### Representative Mid-Continent Quotations on Crude Oil and Refined Products Basis Oklahoma (Group 3)



and the actual volume of business closed over the past week was small.

At this writing any prediction as to probable future trend in refinery prices would be extremely hazardous according to competent market observers. The actions of governmental bodies (both Federal and state) over the balance of the month coupled with co-operative action on the part of organizations representing the oil industry, could result in a continuance of the present optimism with an advance in all markets to the point where profitable levels are obtained. The industry could then offset the heavy losses of the past six months with profitable operations over the last half of 1933. On the other hand it is pointed out if the agencies just mentioned fail to take the constructive action hoped for, the better feeling of the past month could quickly be ended and the industry continue a price basis made necessary by uncontrolled liquidation of excess supplies of raw material.

In this connection market students who have made a close study of the changes in marketing policies made effective by major distributors since the first of the month, are emphasizing the fact that markets for the industry must move up together if stable conditions are to be obtained. The previous practice of endeavoring to maintain high prices for one branch of the industry while other divisions reflected distress conditions does not fit into the new scheme of things. It is predicted for instance there will be no advances in posted crude oil prices unless conditions in the marketing branches are such that these higher prices can be reflected immediately in the refinery tank car and the consumer markets. Conditions in the latter it is contended will be the directly controlling factor in future price fluctuations.

### Statistical Situation

In the accompanying table the statistical situation of Mid-Continent refinery operations based on the latest report of the Bureau of Mines is summarized. Elsewhere in this issue similar data will be found for the entire United States.

In general the government reports reflect a stronger situation in regard to current output and aboveground stocks than existed a year ago. While Mid-Continent gasoline production and stocks are practically the same as a year ago based on the April reports some of the other refining groups have materially reduced their inventories and entered the main gasoline consuming season with the lowest stocks in recent years.

It will be noted in the accompanying table that while kerosene production in the Mid-Continent is about the same as last year stocks are materially higher. This fact no doubt prevented a substantial price recovery in April and May similar to that of last year for the same period.

From the Mid-Continent angle the strongest products as revealed in the government data are distillate, gas oil, lubricants and wax. Stocks of gas oil and distillate were comparatively low a year ago and on April 30 of this year had been further reduced to 1,388,000 bbls. with a production substantially lower than a year ago. Stocks of heavy fuels also were lower. In the face of unsatisfactory markets Mid-Continent manufacturers of lubricants and wax reduced their output the latter part of last year and the early part of this year and as a result the inventory situation on April 30 was much better than it was on the same date in 1932. The wax stocks are approximately 50 per cent less accounting for the recent price strength in that product in both the domestic and export markets.

### Gasoline and Naphtha

As previously explained the third grade U. S. Motor price advanced to a low of 2¾ cents on Tuesday with one-fourth cent differential for the second (regular) grade and one-half cent for upper bracket (premium) grade. Among the interrefinery buyers the demand was strongest for the middle and high octane grades. These buyers want gasolines that can be sold through their stations as their regular grade and the third bracket material is too low in octane rating. The fact that several Oklahoma and Kansas refiners are now selling a "Q" brand Ethyl gasoline as their regular grade also has tended to strengthen the market for the higher octane material. The refiners wish to buy as high octane gasoline as possible in order to reduce the quantity of tetra ethyl fluid required.

The 60-62 400 endpoint grades of gasoline were advanced the same as the U. S. Motor grades of the same octane rating. Advances in the higher gravity grades also materialized although these prices are largely nominal. Unless the seller is willing to guarantee a high octane rating there is little demand for the 390 to 350 endpoint grades of higher gravity gasolines. Cases are cited in which the 375 endpoint material has sold under the middle octane price for U. S. Motor gasoline. This gasoline was straightrun material coming from Oklahoma City crude oil and had an octane rating under 59.

Naphtha prices advanced the same as the U. S. Motor grades of gasoline. There have been several inquiries in the market for all grades of blending naphthas due in part to the low prices that have prevailed for natural gasolines.

### Natural Gasolines

From a percentage angle natural gasolines experienced the greatest advance of any product. The 26-70 grade was quoted in Oklahoma and Texas on Tuesday at 1⅜ to 1½ cents, an increase of approximately 50 per cent for the week. Both the export and domestic buying has improved steadily since the first of the month and over the past few days very little material of any grade has been available for prompt shipment. Three of the largest export buyers have been especially active. These shipments go to Gulf Coast terminals for water shipment.

Manufacturers of 11-pound material for which there has been a strong export and domestic demand over the past few days has advanced rapidly and on Tuesday the general asking price was 2⅝ to 2¾ cents. Sales of 14 and 15-pound material at 2 to 2⅛ cents were reported.

### Kerosene and Distillate

Prices on 41-43 water white specification kerosene to the trade advanced to a low of 2⅝ cents the first of the week. Most distillates also are one-eighth cent higher. Several sources of supply including plants in East Texas withdrew their spot offerings and buyers found less material available.

### Fuel Oil and Gas Oil

The U.G.I. and high cold test grades of gas oils in Oklahoma have been advanced to a low of 1 cent per gallon. Industrial fuel oils have advanced to a low of 30 cents for the low gravity grades and prices range up to 70 cents for the high gravity, low cold test grades. Buying is not active in any of these products and the higher prices are due entirely to the refusal of refiners to sell in expectation of higher quotations later.

### Lubricants and Wax

No changes were reported in cylinder stocks and neutral oils during the week. Predictions of another one-half cent to 1-cent advance in bright stocks before the end of the week are heard in the trade. Two manufacturers reported that they refused offers of 2¼ cents for 124-126 crude scale wax. Prices range up to 2½ cents in prompt shipments.

## Mid-Continent Refinery Operations, April 1933 and 1932. Daily Output and Stocks End of Month. Data in Barrels.*

| | Daily crude to stills | Gasoline | | Kerosene | | Gas oil, distillate | | Residual fuel oils | | Lubricants | | Wax (lbs.) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Output | Stocks | Output | Stocks | Output | Stocks | Output | Stocks | Output | Stocks | Output | Stocks |
| **APRIL, 1933** | | | | | | | | | | | | | |
| Okla., Kans., Mo. | 258,700 | 141,460 | 4,107,000 | 21,930 | 395,000 | 13,600 | 852,000 | 52,320 | 2,204,000 | 6,036 | 495,000 | 84,000 | 2,765,000 |
| Texas Inland | 148,200 | 80,060 | 1,985,000 | 8,666 | 116,000 | 6,036 | 398,000 | 48,300 | 2,678,000 | 660 | 77,000 | 9,330 | 156,000 |
| Ark-La. Inland | 45,000 | 21,930 | 291,000 | 2,233 | 17,000 | 5,830 | 138,000 | 14,400 | 549,000 | 200 | 9,000 | ..... | ..... |
| Total Mid-Continent | 451,900 | 243,450 | 6,383,000 | 32,829 | 488,000 | 25,466 | 1,388,000 | 115,020 | 5,431,000 | 6,896 | 581,000 | 93,330 | 2,921,000 |
| **APRIL, 1932** | | | | | | | | | | | | | |
| Okla., Kans., Mo. | 257,660 | 146,760 | 3,981,000 | 23,030 | 241,000 | 23,700 | 1,391,000 | 51,430 | 2,505,000 | 6,630 | 659,000 | 74,660 | 5,445,000 |
| Texas Inland | 141,030 | 73,700 | 2,314,000 | 7,000 | 107,000 | 6,330 | 576,000 | 44,230 | 3,102,000 | 700 | 74,000 | 9,330 | 160,000 |
| Ark.-La. Inland | 50,800 | 24,360 | 187,000 | 2,560 | 17,000 | 5,000 | 135,000 | 16,230 | 568,000 | 466 | 27,000 | ..... | ..... |
| Total Mid-Continent | 449,490 | 244,820 | 6,482,000 | 32,590 | 365,000 | 35,030 | 2,102,000 | 111,890 | 6,175,000 | 7,796 | 760,000 | 83,990 | 5,545,000 |

*Derived from latest report of Bureau of Mines.

# American Petroleum Institute Weekly Refinery Statistics

Figures below reported for week by American Petroleum Institute. (1) Per cent refinery capacity represented. (2) Daily average crude runs to stills. (3) Total motor fuel stocks. (4) Gas oil and fuel oil stocks. All figures in 42-gallon barrels.

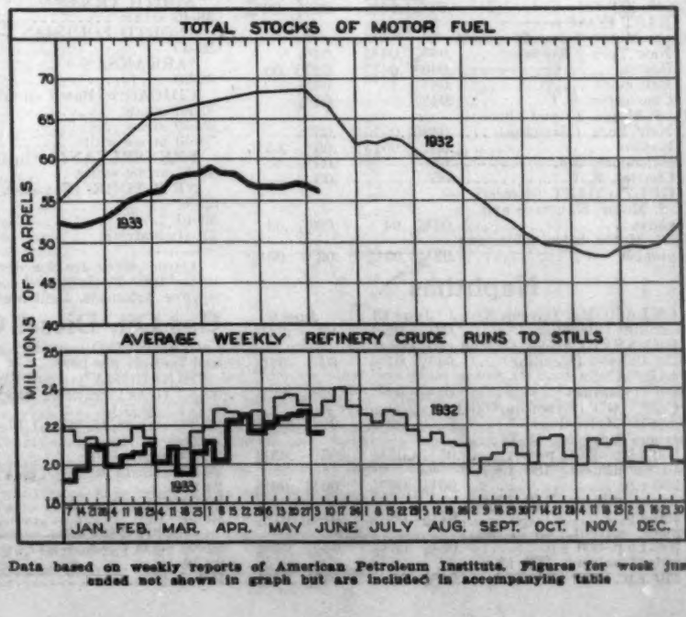
**Week Ending June 10, 1933, Compared to Week Ago**

| | Week ending June 10, 1933 | | | | Week ending June 3, 1933 | | | |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (1) | (2) | (3) | (4) |
| East Coast | 99.1 | 472,000 | 16,252,000 | 6,854,000 | 99.1 | 446,000 | 16,932,000 | 6,897,000 |
| Appalachian | 95.0 | 81,000 | 1,997,000 | 880,000 | 95.0 | 81,000 | 2,083,000 | 820,000 |
| Ind., Ill., Ky. | 97.5 | 310,000 | 7,976,000 | 3,970,000 | 97.5 | 310,000 | 8,239,000 | 3,947,000 |
| Okla., Kans., Mo. | 84.9 | 234,000 | 4,773,000 | 3,333,000 | 84.9 | 223,000 | 4,948,000 | 3,265,000 |
| Inland Texas | 56.4 | 90,000 | 1,526,000 | 2,228,000 | 56.4 | 78,000 | 1,595,000 | 2,243,000 |
| Texas Gulf | 97.7 | 426,000 | 5,463,000 | 6,466,000 | 97.7 | 433,000 | 5,553,000 | 6,125,000 |
| Louisiana Gulf | 97.3 | 112,000 | 1,302,000 | 1,877,000 | 97.3 | 109,000 | 1,337,000 | 2,044,000 |
| N. La. and Ark. | 88.5 | 32,000 | 253,000 | 606,000 | 88.5 | 38,000 | 292,000 | 864,000 |
| Rocky Mtn. | 90.8 | 42,000 | 1,205,000 | 677,000 | 90.8 | 36,000 | 1,344,000 | 636,000 |
| California | 94.6 | 454,000 | 13,900,000 | 98,179,000 | 94.6 | 433,000 | 14,115,000 | 98,415,000 |
| Total U. S. | 91.6 | 2,253,000 | 54,647,000 | 125,070,000 | 91.6 | 2,187,000 | 56,387,000 | 125,046,000 |

Total motor fuel stocks, Bureau of Mines basis, 56,430,000 bbls.

**Week Ending June 10, 1933, Compared to Year Ago**

| | Week ending June 10, 1933 | | | | Week Ending June 11, 1932 | | | |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (1) | (2) | (3) | (4) |
| East Coast | 99.1 | 472,000 | 16,252,000 | 6,854,000 | 100.0 | 479,900 | 18,478,000 | 6,821,000 |
| Appalachian | 95.0 | 81,000 | 1,997,000 | 880,000 | 91.8 | 87,300 | 2,487,000 | 1,046,000 |
| Ind., Ill., Ky. | 97.5 | 310,000 | 7,976,000 | 3,970,000 | 98.9 | 273,900 | 8,908,000 | 3,981,000 |
| Okla., Kans., Mo. | 84.9 | 234,000 | 4,773,000 | 3,333,000 | 89.6 | 246,000 | 5,717,000 | 3,307,000 |
| Inland Texas | 56.4 | 90,000 | 1,526,000 | 2,228,000 | .... | 119,700 | 2,033,000 | 2,892,000 |
| Texas Gulf | 97.7 | 426,000 | 5,463,000 | 6,466,000 | 99.8 | 465,100 | 6,738,000 | 6,779,000 |
| Louisiana Gulf | 97.3 | 112,000 | 1,302,000 | 1,877,000 | 100.0 | 109,000 | 2,057,000 | 4,110,000 |
| N. La. and Ark. | 88.5 | 32,000 | 253,000 | 606,000 | .... | 54,700 | 257,000 | 744,000 |
| Rocky Mtn. | 90.8 | 42,000 | 1,205,000 | 677,000 | 99.4 | 30,100 | 1,374,000 | 643,000 |
| California | 94.6 | 454,000 | 13,900,000 | 98,179,000 | 96.7 | 464,400 | 16,939,000 | 93,040,000 |
| Total U. S. | 91.6 | 2,253,000 | 54,647,000 | 125,070,000 | 95.1 | 2,330,100 | 66,689,000 | 126,274,000 |




Data based on weekly reports of American Petroleum Institute. Figures for week just ended not shown in graph but are included in accompanying table

# REFINERY AND CRUDE PRICES

Quotations on refined products are for interstate or export movement except as otherwise noted

**EXCLUSIVE OF TAXES**

The following quotations are exclusive of the Federal excise taxes of 1 cent a gallon on gasoline and 4 cents on lubricating oils, which became effective June 21, 1932.

## Refinery Gasolines

| | June 13 | | June 6 | |
|---|---|---|---|---|
| OKLAHOMA (Group 3)— | | | | |
| *U. S. Motor grades: | | | | |
| Regular | .03 | .03¼ | .02½ | .02¾ |
| Premium | .03¼ | .03½ | .02¾ | .02⅞ |
| Third grade | .02¾ | | .02½ | .02¼ |
| 60-62 400 grades: | | | | |
| Regular | .03½ | .03¼ | .02⅝ | .02¾ |
| Premium | .03⅝ | .03½ | .02⅞ | |
| Third grade | .02⅞ | .03 | .02¼ | .02⅜ |
| 64-66 390 | .03 | .03½ | .02⅜ | |
| 64-66 375 | .03½ | .03¼ | .02½ | .02⅝ |
| 68-70 350 | .03¼ | .03½ | .02⅝ | .02¾ |
| NORTH TEXAS— | | | | |
| U. S. Motor grades: | | | | |
| Regular | .03 | .03¼ | .02¾ | .02½ |
| Premium | .03¼ | .03½ | .02⅝ | .02¾ |
| Third grade | .02⅝ | .02¾ | .02 | .02¼ |
| 60-62 400 | .02¾ | .03 | .02¼ | .02¼ |
| 64-66 390 | .02⅞ | .03 | .02¼ | |
| 64-66 375 | .03 | .03½ | .02⅝ | .02½ |
| 64-66 360 | .03 | .03⅛ | .02½ | .02¾ |
| †NORTH LOUISIANA— | | | | |
| U. S. Motor grades: | | | | |
| Regular | .03⅛ | .03¼ | .02¾ | .02⅞ |
| Premium | .03¼ | .03½ | .03 | .03⅛ |
| Third grade | .02¾ | .03 | .02⅜ | .02½ |
| 60-62 400 | .02⅞ | .03⅛ | .02½ | .02⅝ |
| †ARKANSAS— | | | | |
| U. S. Motor grades: | | | | |
| Regular | .03⅛ | .03¼ | .02¾ | .02⅞ |
| Premium | .03⅜ | .03½ | .03 | |
| Third grade | .02¾ | .03 | .02⅜ | .02½ |
| CHICAGO (Based on Oklahoma Group 3)— | | | | |
| U. S. Motor grades: | | | | |
| Regular | .03 | .03¼ | .02¼ | .02⅜ |
| Premium | .03¼ | .03½ | .02½ | .02⅝ |
| Third grade | .02¾ | .02⅞ | .02 | .02⅛ |
| 60-62 400 | .02⅞ | .03 | .02¼ | .02⅛ |
| 64-66 375 | .03 | .03⅛ | .02½ | .02⅝ |
| 68-70 360 | .03½ | .03¼ | .02⅝ | .02⅞ |
| Aviation fighting grade | .03¼ | .03½ | .03 | .03¼ |

*Octane Ratings—The following octane ratings apply to the three grades of U. S. Motor gasoline: Regular 60-64 octane number; premium, 65 and above octane number; third grade, 59 and below octane number. Octane ratings determined by C.F.R. Motor Method.

†For Arkansas, Louisiana and Mississippi delivery.

| | | | | |
|---|---|---|---|---|
| PENNSYLVANIA (inland refineries)— | | | | |
| U. S. Motor | .04½ | .04⅝ | .04⅜ | .04½ |
| 60-62 400 | .04⅝ | .04¾ | .04½ | .04⅝ |
| 64-66 375 | .04¾ | .04⅞ | .04⅝ | .04¾ |
| 68-70 350 | .04⅞ | .05⅛ | .04¾ | .05 |
| CALIFORNIA (domestic movement)— | | | | |
| 54-58 U. S. Motor | .05¼ | .06½ | .05¼ | .06½ |
| 58-60 400 | .05¾ | .06¾ | .05¾ | .06¾ |
| EAST COAST— | | | | |
| U. S. Motor, below 65 octane: | | | | |
| New York (Bayonne) | .04¾ | .04⅞ | .04¾ | |
| Boston | .0465 | .0475 | .0490 | .05 |
| Baltimore | .04¾ | | .04¾ | |
| Charleston, S. C. | .04¾ | | .04¾ | |
| U. S. Motor, 65 and above: | | | | |
| New York (Bayonne) | .0490 | .0515 | .05 | |
| Boston | .05 | .0515 | .05 | .0515 |
| Baltimore, Md. | .05 | | .05 | |
| Charles, S. C. | .05 | | .05 | |
| GULF COAST (domestic)— | | | | |
| U. S. Motor, 65 octane and above | .03¾ | .04 | .03½ | .04 |
| U. S. Motor, below 65 octane number | .03¼ | .03½ | .03 | .03½ |

## Naphthas

| | June 13 | | June 6 | |
|---|---|---|---|---|
| OKLAHOMA (Group 3)— | | | | |
| 50-52 450 (blending) | .02½ | .02¾ | .02 | .02⅛ |
| PENNSYLVANIA (inland refineries)— | | | | |
| 50-54 430-450 (blending) | .04¼ | .04½ | .04 | .04¼ |
| †ARKANSAS— | | | | |
| 48-50 (blending) | .02¾ | .03 | .02⅜ | .02½ |
| CHICAGO (Based on Oklahoma Group 3)— | | | | |
| 50-52 450 (blending) | .02½ | .02⅝ | .02 | .02⅛ |
| Cleaners' naphtha, 56-58 gr., 200 i.b.p.-320 e.p. | .05¼ | .05½ | .05 | .05¼ |
| Lacquer diluent, 180 i.b.p.-250 e.p. | .06½ | .06¾ | .06¼ | .06½ |
| Lacquer diluent, 140 i.b.p.-200 e.p. | .07½ | .08 | .07¼ | .07¾ |
| Rubber solvent, 68-70 gr., 100 i.b.p.-300 e.p. | .05¼ | .05½ | .04¾ | .05¼ |
| Stoddard solvent, 300 i.b.p.-410 e.p., over 83° flash | .04¾ | .05 | .04½ | .04¾ |
| Pet. thinner, 290-310 i.b.p., 415 e.p., over 83° flash | .04½ | .04¾ | .04¼ | .04½ |
| V.M.&P. naphtha, 56-58 gr., 190-200 i.b.p.-330 e.p. | .05 | .05¼ | .04¾ | .05 |
| Petroleum spirits | .04 | .04¼ | .03¾ | .04 |

## Natural Gasolines

| | June 13 | | June 6 | |
|---|---|---|---|---|
| OKLAHOMA (Group 3)— | | | | |
| Grade 18-55 | .01¾ | .01⅞ | .01¼ | |
| Grade 26-70 | .01⅝ | .01½ | .01 | |
| Grade 30-70 | .01⅝ | | .01 | |
| *Low pressure grades: | | | | |
| 15 lb. v.p. (max.) | .02 | .02¼ | .01⅜ | .01½ |
| 11 lb. v.p. (max.) | .02⅝ | .02¾ | .01¾ | .02 |
| NORTH TEXAS— | | | | |
| Grade 18-55 | .01¾ | | .01¼ | |
| Grade 26-70 | .01⅝ | .01½ | .01 | |
| Grade 30-70 | .01⅝ | | .01 | |
| *Low pressure grades: | | | | |
| 15 lb. v.p. (max.) | .02 | | .01⅜ | .01½ |
| 11 lb. v.p. (max.) | .02⅝ | | .01¾ | .02 |
| NORTH LOUISIANA— | | | | |
| Grade 26-70 | .01¾ | | .01¼ | |
| CALIFORNIA— | | | | |
| 75-78 375 | .03¾ | .04¼ | .03¾ | .04¼ |

## Kerosenes

(All kerosenes water white)

| | June 13 | | June 6 | |
|---|---|---|---|---|
| OKLAHOMA (Group 3)— | | | | |
| 41-43 | .02⅜ | .02⅝ | .02¼ | .02⅝ |
| 42-44 | .02⅝ | .02¾ | .02⅝ | .02¾ |
| NORTH TEXAS— | | | | |
| 40-41 | .02¼ | | .02 | .02½ |
| 41-43 | .02⅝ | .02½ | .02⅛ | .02¼ |
| †NORTH LOUISIANA— | | | | |
| 41-43 | .02¾ | .03 | .02⅝ | .02¾ |
| 42-44 | .02⅞ | .03⅛ | .02¾ | .03 |
| †ARKANSAS— | | | | |
| 41-43 | .02⅞ | .03 | .02¾ | |
| PENNSYLVANIA (inland refineries)— | | | | |
| 45 | .04¼ | .04¼ | .04 | .04½ |
| 46 | .04¼ | .04⅝ | .04½ | .04¼ |
| 47 | .04⅝ | .04½ | .04⅝ | .04½ |
| CHICAGO (Based on Oklahoma Group 3)— | | | | |
| 41-43 | .02½ | .02¾ | .02½ | .02⅝ |
| 42-44 | .02¾ | .03 | .02¼ | .02½ |
| *CALIFORNIA— | | | | |
| 38-40 high burning test | .03½ | .04¼ | .03½ | .04¼ |
| NEW YORK (Bayonne, N. J.)— | | | | |
| 41-43 | .04¾ | .05¼ | .04¾ | |
| GULF COAST (domestic)— | | | | |
| 41-43 water white | .03¾ | .04 | .03¾ | .04 |

*For Pacific Coast consumption.

†For Arkansas, Louisiana and Mississippi delivery.

## Furnace Oils and Tractor Fuels

| | June 13 | | June 6 | |
|---|---|---|---|---|
| OKLAHOMA (Group 3)— | | | | |
| 32-36 straw | .01¾ | .01⅞ | .01⅝ | .01¾ |
| 36-38 straw | .01⅝ | .01¾ | .01½ | .01⅝ |
| 38-40 straw | .01¾ | .01⅞ | .01⅝ | .01¾ |
| 39-41 prime | .01⅞ | .02 | .01¾ | .01⅞ |
| NORTH TEXAS— | | | | |
| 38-40 straw | .01¾ | .01⅞ | .01⅝ | .01¾ |
| †NORTH LOUISIANA— | | | | |
| 36-40 | .02¼ | .02½ | .02¼ | .02½ |
| †ARKANSAS— | | | | |
| 32-36 | .02⅝ | .02½ | .02¼ | .02½ |
| CHICAGO (Based on Oklahoma Group 3)— | | | | |
| 32-36 straw | .01⅝ | .01¾ | .01⅜ | .01⅝ |
| 38-40 straw | .01⅝ | .01¾ | .01½ | .01¾ |
| 38-40 prime white | .01¾ | .02 | .01½ | .01⅞ |
| PENNSYLVANIA (inland refineries)— | | | | |
| 40-41 prime white | .03 | .03⅛ | .02⅞ | .03 |
| NEW YORK (Bayonne, N. J.)— | | | | |
| 32-36 | .04 | | .04 | |
| 36-40 | .05 | | .05 | |
| 21 (industrial) | .03½ | | .03½ | |

Above prices are for distillate oils of zero cold test under 190° F. flash and good odor.

†For Arkansas, Louisiana and Mississippi delivery.

## Gas Oil, Diesel Oil and Fuel Oil

Gas oil (G.O.) quoted per gallon basis; Diesel oil and fuel oil per barrel.

| | June 13 | | June 6 | |
|---|---|---|---|---|
| OKLAHOMA (Group 3)— | | | | |
| 32-36 (G.O.) cracking stock | .01 | .01½ | .00⅞ | .01 |
| U.G.I. (G.O.) | .01 | .01⅛ | .00⅞ | .01 |
| 32-36, zero to 15 (G.O.) high flash | .01⅜ | .01½ | .01¼ | .01⅜ |
| 28-30, zero to 10 | .60 | .65 | .60 | .65 |
| 26-30, zero to 10 | .55 | .60 | .50 | .60 |
| 24-26 | .40 | .45 | .35 | .40 |
| 20-22 | .35 | .37½ | .30 | .32½ |
| Below 16 | .30 | .35 | .27½ | .30 |
| NORTH TEXAS— | | | | |
| 32-36 (G.O.) industrial | .01 | | .00⅞ | .01 |
| 22-26 | .40 | .45 | .35 | .40 |
| Below 20 | .35 | .40 | .30 | .32½ |
| †NORTH LOUISIANA— | | | | |
| 32-36 (G.O.) zero | .02 | .02¼ | .01¾ | .02 |
| 14-16 | .35 | | .30 | |
| †ARKANSAS— | | | | |
| 30-32 (G.O.) zero | .02¼ | | .02¼ | |
| 14-16 | .35 | | .35 | |
| CHICAGO (Based on Oklahoma Group 3)— | | | | |
| 32-36 (G.O.) industrial | .00⅞ | .01⅛ | .00¾ | .01 |
| 28-30 (zero) | .60 | .65 | .60 | .65 |
| 26-28 (zero) | .55 | .60 | .52½ | .57½ |
| 22-26 (zero) | .50 | .55 | .45 | .50 |
| 18-22 (zero) | .42½ | .47½ | .40 | .45 |
| Below 18 | .37½ | .40 | .30 | .35 |

Note: Fuel oils of more than 40 cold test generally 5 to 15 cents per barrel less in all areas than shown in above tables.

†For Arkansas, Louisiana and Mississippi delivery.

| | | | | |
|---|---|---|---|---|
| PENNSYLVANIA (inland refineries)— | | | | |
| 36-40 | .03¼ | | .03¼ | |
| CALIFORNIA— | | | | |
| 30-34 (G.O.) per bbl. | .80 | .90 | .80 | .90 |
| 27 plus Diesel | .75 | .85 | .75 | .85 |
| 15-19 bunker (at tidewater) | .50 | .60 | .50 | .60 |
| 15-19 (cargo lots) | .45 | .55 | .45 | .55 |
| 15-19 (tank cars) | .35 | .50 | .35 | .50 |
| GULF COAST— | | | | |
| 28-30 (G.O.) | .02⅝ | .02⅞ | .02⅝ | .02⅞ |
| 28-30 Diesel | 1.50 | | 1.50 | |
| Bunker C (bulk cargoes) | .50 | .55 | .50 | .55 |
| Bunker C (bunkers) | .55 | .60 | .50 | .60 |
| NEW YORK (Bayonne, N. J.)— | | | | |
| 28 plus (G.O.) | .04 | | .04 | |
| *28-30 Diesel | 1.65 | | 1.65 | |
| 26-30 Diesel (tank cars) | .04 | | .04 | |
| ‡Bunker C | .70 | .75 | .70 | .75 |

*Lighterage 6½ cents per barrel.

†Lighterage 5 cents per barrel.

‡Contract price at New York Harbor to ocean-going steamships only.

## Petroleum Coke*

Prices per ton f.o.b. refineries in Chicago area.

| | | |
|---|---|---|
| Breeze (screenings) | 4.50 | 4.50 |
| Stills runs | 5.50 | 5.50 |
| Lump and egg | 6.50 | 6.50 |

*Refineries will absorb freight to 80 cents a ton.

## Neutral Oils

(Viscosity at 100° F. and color)

| | June 13 | | June 6 | |
|---|---|---|---|---|
| OKLAHOMA (Group 3)— | | | | |
| Zero to 10 Cold Test: | | | | |
| 150-3 | .06¼ | .06½ | .06¼ | .06½ |
| 180-3 | .07½ | .07¾ | .07½ | .07¾ |
| 180-4 | .07¼ | .07½ | .07¼ | .07½ |
| 200-3 | .08 | .08¼ | .08 | .08¼ |
| 200-4 | .07¾ | .08 | .07¾ | .08 |
| 240-3 | .10 | .10¼ | .10 | .10¼ |
| 240-4 | .09¾ | .10 | .09¾ | .10 |
| 280-3 | .11 | .11¼ | .11 | .11¼ |
| 280-4 | .10½ | .10¾ | .10½ | .10¾ |
| 300-3½ | .11¼ | .11½ | .11¼ | .11½ |
| 350-3½ | .11¾ | .12 | .11¾ | .12 |
| 400-4 | .12¼ | .12½ | .12¼ | .12½ |
| 500-4½ | .12¾ | .13 | .12¾ | .13 |
| 100-2 paraffin oil | .04¼ | .04½ | .04¼ | .04½ |
| 15-30 Cold Test: | | | | |
| 200-3 | .07¼ | .07½ | .07¼ | .07½ |
| 2 0-4 | .07 | .07¼ | .07 | .07¼ |
| 240-3 | .09¼ | .09½ | .09¼ | .09½ |
| 240-4 | .09 | .09¼ | .09 | .09¼ |
| 280-3 | .10¼ | .10½ | .10¼ | .10½ |
| 280-4 | .10 | .10¼ | .10 | .10¼ |
| PENNSYLVANIA— | | | | |
| 150 vis., No. 3, 400-405: | | | | |
| Zero pour test | .17 | .17½ | .17 | .17½ |
| 10 pour test | .16½ | .17 | .16½ | .17 |
| 15 pour test | .15½ | .15½ | .15¼ | .15½ |
| 25 pour test | .14½ | .14¾ | .14½ | .14¾ |
| 180 vis., No. 3, 25 pour test | .16¼ | .16½ | .16¼ | .16½ |
| 200 vis., No. 3: | | | | |
| Zero pour test | .20¼ | .20½ | .20¼ | .20½ |
| 10 pour test | .19¼ | .19½ | .19¼ | .19½ |
| 15 pour test | .18¼ | .18½ | .18¼ | .18½ |
| 25 pour test | .18¼ | .18½ | .18¼ | .18½ |
| GULF COAST— | | | | |
| Pale Oils: | | | | |
| 100-2-2½ | .04¾ | .05¼ | .04¾ | .05¼ |
| 200-3 | .05½ | .06 | .05½ | .06 |
| 300-3 | .06¾ | .07¼ | .06¾ | .07¼ |
| 500-3½ | .08¾ | .09¼ | .08¾ | .09¼ |
| 750-3½ | .09¾ | .10¼ | .09¾ | .10¼ |
| 1,200-3½ | .12 | .12¼ | .12 | .12¼ |
| 2,000-4 | .13 | .13¾ | .13 | .13¾ |
| Red Oils: | | | | |
| 200-5-6 | .05 | .05½ | .05 | .05½ |
| 300-5-6 | .06 | .06½ | .06 | .06½ |
| 500-5-6 | .07 | .07½ | .07 | .07½ |

| | | | | |
|---|---|---|---|---|
| 1,200-5-6 | .10¼ | .10¾ | .10¼ | .10¾ |
| 2,000-6 plus | .12 | .12½ | .12 | .12½ |
| CALIFORNIA— | | | | |
| Pale Oils: | | | | |
| 100-21½-3 | .09 | .09½ | .09 | .09½ |
| 200-21½-3 | .09½ | .10 | .09½ | .10 |
| 300-3-3½ | .10½ | .11 | .10½ | .11 |
| 350-3-4 | .11 | .11½ | .11 | .11½ |
| 400-3-4 | .11½ | .11¾ | .11½ | .11¾ |
| 450-3-4 | .11¾ | .12 | .11¾ | .12 |
| 550-3-4 | .12 | .12½ | .12 | .12¼ |
| Red Oils: | | | | |
| 200-4-5 | .09½ | .10 | .09½ | .10 |
| 300-5-6 | .10½ | .11 | .10½ | .11 |
| 350-5-6 | .11 | .11½ | .11 | .11½ |
| 400-5-6 | .11½ | .11¾ | .11½ | .11¾ |
| 450-5-6 | .11¾ | .12 | .11¾ | .12 |
| 500-5-6 | .12 | .12¼ | .12 | .12¼ |
| 600-5-6½ | .12¼ | .12½ | .12¼ | .12½ |
| 700-6½ plus | .12½ | .12¾ | .12½ | .12¾ |
| 750-6½ plus | .12¾ | .13 | .12¾ | .13 |
| 900-6½ plus | .13 | .14½ | .13 | .14½ |

## Bright and Steam Refined Stocks

| OKLAHOMA (Group 3)— | June 13 | | June 6 | |
|---|---|---|---|---|
| 630 light green | .05½ | .06½ | .05½ | .06½ |
| 600 light green S.R. | .05 | .06 | .05 | .06 |
| 600 dark green S.R. | .03½ | .04 | .03½ | .04 |
| Bright Stocks: | | | | |
| 190-200 D | .19½ | .20½ | .19½ | .20½ |
| 150-160 D. 0-10 | .17¾ | | .17¾ | |
| 150-160 D. 10-25 | .17¼ | | .17¼ | |
| 150-160 D, 25-40 | .16¾ | | .16¾ | |
| 150-160 E | .15¾ | | .15¾ | |
| PENNSYLVANIA— | | | | |
| 600 S.R. | .11 | .11¼ | .11 | .11¼ |
| 650 S.R. | .13¼ | .13½ | .13¼ | .13½ |
| 600 Pennsylvania flash | .14¼ | .14½ | .14¼ | .14½ |
| 630 D filtered | .19 | .19½ | .19 | .19½ |
| 600 E filtered | .14¾ | | .14¾ | |
| Pennsylvania Grade bright stock: | | | | |
| No. 8 color, 145-50 vis., at 210; 540-560 flash: | | | | |
| 10 pour test | .23½ | .24 | .23½ | .24 |
| 15 pour test | .21½ | .22 | .21½ | .22 |
| 25 pour test | .20½ | .21 | .20½ | .21 |

## Wax and Petrolatum

(Prices per pound)

| | June 13 | | June 6 | |
|---|---|---|---|---|
| OKLAHOMA (Group 3)— | | | | |
| 124-126 white crude scale | .02¼ | .02⅜ | .02 | |
| PENNSYLVANIA— | | | | |
| 122-124 | .02¼ | .02½ | .0225 | |
| 124-126 | .02⅜ | .02⅝ | .0230 | |
| NEW YORK HARBOR (domestic)— | | | | |
| 120-122 (a.m.p. basis) | .03 | | .03 | |
| 125-127 | .03¼ | | .03¼ | |
| 130-132 | .0370 | | .0360 | |
| 133-135 | .0430 | | .0430 | |
| 135-137 | .0460 | | .0460 | |
| Petrolatum in barrels in carload lots: | | | | |
| Dark green | .01⅞ | | .01⅞ | |
| Amber | .02 | | .02 | |
| Extra amber | .02⅜ | | .02⅜ | |
| Lily white | .05½ | | .05½ | |
| Snow white | .06½ | | .06½ | |
| Cream | .04½ | | .04½ | |
| CHICAGO (f.o.b. switching district)*— | | | | |
| 122-124 | .0340 | .0350 | .0340 | .0350 |
| 125-127 | .0365 | .0375 | .0365 | .0375 |
| 127-129 | .0380 | .0390 | .0380 | .0390 |
| 130-132 | .0440 | .0450 | .0440 | .0450 |
| 132-134 | .0465 | .0475 | .0465 | .0475 |

*Cents per pound on carlot orders in cotton lined burlap bags of 225 lbs. approx.
Add 3° F. for a.m.p.

## Export Prices

GASOLINE

| GULF COAST— | June 13 | | June 6 | |
|---|---|---|---|---|
| U. S. Motor | .03½ | .03¾ | .03½ | .03¾ |
| 60-62 400 | .03¾ | | .03¾ | |
| 61-63 391 | .03¾ | | .03¾ | |
| 64-66 375 | .03¾ | .04 | .03¾ | .04 |
| LOS ANGELES, CALIF.— | | | | |
| U. S. Motor, 53-55 437 e.p. | .03¾ | .04¼ | .03¾ | .04¼ |
| U. S. Motor, 65 octane | .04½ | .04¾ | .04½ | .04¾ |
| U. S. Motor, 67 octane | .05 | | .05 | |
| U. S. Motor, 69 octane | .05¼ | | .05¼ | |
| 58-60 400 endpoint gasoline | .04¼ | .05 | .04¼ | .05 |
| KEROSENE | | | | |
| GULF COAST— | | | | |
| 41-43 prime white | .03¾ | | .03¾ | |
| 41 water white | .03⅞ | | .03⅞ | |
| LOS ANGELES, CALIF.— | | | | |
| 41-43 water white | .03¾ | .04¼ | .03¾ | .04¼ |
| LUBRICANTS | | | | |
| NEW YORK (f.a.s. in bbls.)— | | | | |
| 600 Warren E | .22¼ | | .22¼ | |
| 600 S.R. unfiltered | .18½ | | .18½ | |
| 650 S.R. unfiltered | .20¾ | | .20¾ | |
| 600 flash S.R. | .21¾ | | .21¾ | |
| 630 flash S.R. | .26¾ | | .26¾ | |
| Bright stock, No. 8 color | .27½ | | .27½ | |
| Bright stock, No. 6½ color dil. | .26½ | | .26½ | |
| NEUTRALS | | | | |
| NEW YORK—Pale Engine Oil, Bulk (vis. at 100)— | | | | |
| 230-3⅜ | .09¾ | | .09¾ | |
| 180-3¼ | .09½ | | .09½ | |
| 100-2¼ | .05 | | .05 | |
| Red Engine Oil, Bulk (vis. at 100): | | | | |
| 300-6½ | .09½ | | .09½ | |
| 250-6 | .08½ | | .08½ | |
| 200-6 | .07¾ | | .07¾ | |
| PARAFFIN WAX (Fully Refined) | | | | |
| NEW YORK (prices per pound)— | | | | |
| 123-125 a.m.p. | .02875 | | .02875 | |
| 125-127 a.m.p. | .03 | | .0290 | |
| 130-132 a.m.p. | .0350 | | .0350 | |
| 133-135 a.m.p. | .04 | | .04 | |
| 135-137 a.m.p. | .0475 | | .0430 | |

## Crude Oil Prices

### Eastern States

SOUTH PENN OIL CO.
(Effective May 22, 1933)

Pennsylvania Grade Oil in National Trans't Lines (Bradford Field) ....$1.37
Pennsylvania Grade Oil in Southwest Pennsylvania Lines ..... 1.07
Penna Grade Oil in Eureka Pipe Line Lines ..... 1.02
Penna Grade Oil in Buckeye Pipe Lines ..... .90
Corning Grade Oil in Buckeye Pipe Line Co.'s Lines (May 8, 1933) ..... .80
Ragland Grade Oil in Cumberland Pipe Lines (Kentucky) (Jan. 10, 1931).... .60

PENNZOIL CO.
(Effective May 22, 1933)

Pennsylvania Grade Oil in National Transit Lines:
Group A ..... $1.32
Includes Cochran, Franklin, Hamilton and Doolittle districts.
Group B ..... 1.31
Includes Titusville district.
Group C ..... 1.30
Includes Turkey and Tidioute districts.
Group D ..... 1.29
Includes Bear Creek and Porkey districts.
Group E ..... 1.27
Includes Eldenau, Bull Creek, Rough Run, Carbon, Dipner, Bredin, McJunkin, Jameson, Kennerdell, Emlenton, Tiona, Lacy and Kinzua districts.
Price depends on length of pipe line haul to plant at Oil City.

TIDE WATER PIPE CO.
(Effective May 22, 1933)

Bradford, Pa. ..... $1.37
Allegany, N. Y. ..... 1.37

PURE OIL CO.
(Effective May 22, 1933)

Cabin Creek, W. Va. ..... $1.02
Bradford Hollow, W. Va. ..... 1.02
Kelly's Creek, W. Va. ..... 1.02

### Rocky Mountain States

Ilse, light (all grades) May 8, 1933..$ .35
Fort Collins, Wellington and Greasewood, Colo., are on contract basis.
Florence (May 8, 1933)..... .25
Dutton Creek, Wyo. (May 8, 1933)..... .35
Rock Creek, Wyo. (Jan. 25, 1933)..... .....
Frannie, light (May 8, 1933)..... .25
Frannie, heavy (May 8, 1933)..... .20
Salt Creek (May 8, 1933) ..... .25
See Stanolind Mid-Continent price schedule
LaBarge (May 8, 1933)..... .25
Big Muddy (May 8, 1933)*..... .25
Big Muddy (May 8, 1933)†..... .25
Grass Creek (Jan. 18, 1933)..... .62
Grass Creek, heavy (Dec. 15, 1932)..... .45
Elk Basin, light (Jan. 18, 1933)..... .62
Lance Creek (Dec. 16, 1932)..... .92
Poison Spider (Mar. 5, 1931)..... .70
Hudson (June 2, 1931)..... .65
Lander (Mar. 5, 1931)..... .40
Rex Lake (Feb. 21, 1930)..... 1.10
Osage (Jan. 18, 1933)..... .52
Lost Soldier (Apr. 12, 1932)..... .30
Hamilton Dome (Dec. 16, 1932)..... .25
Torchlight (May 8, 1933)..... .35
Greybull (May 8, 1933)..... .35
Cat Creek (May 6, 1933)..... .35
Pendera (Nov. 7, 1932)..... .60
Sunburst, Mont. (May 9, 1933)..... .65
Hogback, N. Mex. (May 8, 1933)..... .50
Lea County, N. Mex. (See Note)..... .20
Maljamar (Jan. 20, 1933) ..... .25
Artesia-Jackson (Jan. 20, 1933)..... .30

Note—Salt Creek, Cat Creek, Dry Creek, Dallas-Derby, Hudson, Greybull, Hogback, and Ilse by Stanolind Oil & Gas Co. and remainder by Ohio Oil Co. Both companies posted Grass Creek light and Elk Basin. Lost Soldier posted by Producers & Refiners Corp. Artesia, Jackson and Maljamar posted by Continental Oil Co. Lea County, effective May 2, posted by Humble Oil & Refining Co., followed by other buyers; Fort Collins, Wellington, Orchard, Florence, Big Muddy, Cat Creek, Rattlesnake and Table Mesa by Continental Oil Co. Osage posted by Arro.
*Continental Oil Co. †Ohio Oil Co.

### Middle Western States

OHIO OIL CO.
(Effective May 9, 1933)

Lima ..... $0.55
Wooster (May 8, 1933) ..... .50
Illinois ..... .47
Indiana ..... .25
Princeton ..... .47
Plymouth ..... Shut in
Western Kentucky ..... .42
Midland, Mich. (May 8, 1933)*..... .75
Somerset, Ky. (May 9, 1933)..... .50
Muskegon, Mich. (Mar. 27) ..... See note

*Posted by Pure Oil Co. Producers Pipe Line Co. pays 5 cents per barrel over Pure Oil Co.'s posted price. Muskegon: All companies pay $1 per barrel effective March 27. Somerset, Ky., crude purchased by Ashland Refining Co., Ashland, Ky., and posted price includes premium.

### Mexico

Panuco* ..... $0.375

*F.o.b. ship, based on May transactions and exclusive of production and export taxes and bar dues.

### Canada

Ontario (Jan. 18, 1933):
Petrolia* ..... $1.75
Oil Springs* ..... 1.88
Turner Valley†:
Crude oil, 31°-35.9° (Jan. 24, 1933).... 1.41
Crude oil, 36°-40.9° (Jan. 24, 1933).... 1.90
Crude oil, 50° up (Jan. 24, 1933)..... 2.41
Discolored naphtha (Jan. 24, 1933).... 2.58
Crude naphtha (Jan. 24, 1933)..... 2.83

*Imperial Oil, Ltd. †Imperial Oil, Ltd., and Regal Oil & Refining Co.

## Crude Oil Prices in Kansas, Oklahoma, Texas, Louisiana and Arkansas

| | Stanolind Crude Oil Pur. Co. May 6 | Stanolind Crude Oil Pur. Co. May 3 | Carter Oil Co. May 8 | Humble Oil & Refining Co. May 3 | Gypsy Oil Co. May 8 | Gulf Pipe Line Co. May 5 | Gulf Refining Co. of Louisiana May 6 | The Texas Company May 9 | The Texas Company May 3 | Magnolia Petroleum Co. May 8 | Sinclair Prairie Oil Mar. Co. May 3 | Sinclair Prairie Oil Mar. Co. May 8 | Shell Petroleum Corp. May 3 | Standard Oil Co. of Louisiana May 6 | Empire Pipe Line Co. May 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kansas | $.25 | .... | $.25 | .... | $ 25 | .... | .... | $ 25 | .... | .... | .... | $.25 | *$.25 | .... | $.25 |
| Oklahoma | .25 | .... | .25 | .... | .25 | .... | .... | .25 | .... | (†) | .... | .25 | * .25 | .... | .25 |
| North-Central Tex. | .... | $ .25 | .... | $ 25 | .... | $.25 | .... | .... | $.25 | $.25 | $.25 | .... | .... | .... | .... |
| East Central Tex. | .... | .25 | .... | ‡ .25 | .... | .25 | .... | .... | .25 | .25 | .25 | .... | .... | .... | .... |
| East Texas | .... | .... | .... | ‡ .25 | .... | .25 | .... | .... | .25 | .25 | .25 | .... | * .25 | .... | .25 |
| West Texas | .... | .... | .... | .20 | .... | .20 | .... | .... | .20 | .... | .... | .... | .20 | .... | .... |
| Gulf Coast-Tex.-La. | .... | .... | .... | .30 | .... | .30 | .... | .... | .30 | .30 | .... | .... | *.30 | .... | .... |
| Salt Flat, Tex. | .... | .... | .... | .23 | .... | .... | .... | .... | .... | .... | .... | .... | .23 | .... | .... |
| Pettus, Tex. | .... | .... | .... | .25 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Mirando, Tex. | .... | .... | .... | .25 | .... | .... | .... | .... | .... | .25 | .... | .... | .... | .... | .... |
| Saxet, Tex. | .... | .... | .... | .... | .... | .... | .... | .... | .30 | .... | .... | .... | .... | .... | .... |
| Duval, Tex. | .... | .... | .... | .... | .... | .... | .... | .... | .25 | .... | .... | .... | .... | .... | .... |
| Darst Creek, Tex. | .... | .... | .... | .23 | .... | .23 | .... | .... | .23 | .23 | .... | .... | .... | .... | .... |
| Luling, Tex. | .... | .... | .... | .... | .... | .... | .... | .... | .... | .20 | .... | .... | .... | .... | .... |
| Corsicana (heavy) | .... | .... | .... | .... | .... | .... | .... | .... | .... | .20 | .... | .... | .... | .... | .... |
| Lytton Springs, Tex. | .... | .... | .... | .... | .... | .... | .... | .... | .... | .25 | .... | .... | .... | .... | .... |
| Bruner, Tex. | .... | .... | .... | .... | .... | .23 | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Conroe, Tex. | .... | .... | .... | .30 | .... | .... | .... | .... | .30 | .... | .... | .... | .... | .... | .... |
| Refugio, Tex. | .... | .... | .... | .30 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| Gray County, Tex. | .... | .... | .... | .20 | .... | .... | .... | .20 | .20 | .... | .... | .... | .... | .... | .... |
| Carson-Hutchinson | .... | .... | .... | .18 | .... | .18 | .... | .18 | .18 | .... | .... | .... | .... | .... | .... |
| North Louisiana | .... | .... | .... | .... | .... | .... | $.25 | .25 | .25 | .... | .... | .... | .... | $.25 | .... |
| El Dorado (light) | .... | .... | .... | .... | .... | .... | .25 | .25 | .25 | .... | .... | .... | .... | .25 | .... |
| Smackover, Ark. | .... | .... | .... | .30 | .... | .30 | .... | .20 | .... | .... | .... | .... | .... | .30 | .... |
| Jennings, La. | .... | .... | .... | .20 | .... | .20 | .... | .... | .... | .... | .... | .... | .... | .... | .... |

*May 6, 1933. May 10. ‡May 13. †The Magnolia Petroleum Co., effective May 9, posted the following prices in Oklahoma: Below 28 degrees, 20 cents; 28 to 34.9 degrees, 23 cents; 35 degrees and above, 25 cents.

In the fields in which they are buying in Kansas or Oklahoma or both, the following other companies posted 25 cents per barrel on the date named: Bell Oil & Gas Co., May 2; Barnsdall Refineries, Inc., May 6; Pure Oil Co., May 8; Mid-Continent Petroleum Corp., May 6; Skelly Oil Co., May 6; Vickers Petroleum Corp., May 7; Anderson & Prichard, May 6; Johnson Oil & Refining Co., May 6; Champlin Refining Co., May 6; Yale Refining Co., May 6; El Dorado Refining Co., May 6; Globe Refining Co., May 6; Rock Island Refining Co., May 8; White Eagle Oil Corp., May 9; Continental Oil Co., May 8. National Refining Co., May 24.

The Phil-Tex Oil Co. posted 20 cents in Gray County and 18 cents in Carson and Hutchinson Counties, Texas, on May 6, and on May 7 posted 25 cents in Oklahoma.

The Louisiana-Arkansas Pipe Line Co. posted 18 cents in Urania and 25 cents in other North Louisiana fields in which it buys oil. Its Smackover price of 25 cents was unchanged.

The Tide Water Oil Co. on May 5 posted 25 cents in East Texas and 40 cents in Conroe, Texas.

The Atlantic Oil Producing Co. posted 25 cents in East Texas, 20 cents in West Texas, and 35 cents in Pettus, Texas, on May 5.

H. L. Hunt, Inc., effective May 9, posted 20 cents in Urania, La. Panola Pipe Line Co. posted 25 cents in East Texas May 6.

Phillips Petroleum Co., effective May 22, posted 20 cents per barrel in Ouachita and Union Counties, Arkansas.

Shell Petroleum Corp., effective May 22, posted 25 cents in Polk County, Texas.

(California Crude Oil Prices on Page 36)

# TANK WAGON MARKETS

Quotations for gasoline and kerosene in United States, as furnished by the larger marketing concerns, include taxes

June 13, 1933

### Taxes

The gasoline quotations given in the following tables include the 1-cent Federal tax as well as state, county and city taxes. The gasoline quoted is the regular or standard grade. In most marketing areas a third or competitive grade is generally available at 1 or more cents per gallon under the service station price for the regular grade. Ethyl Gasolines are sold 2 cents above the service station price for the regular grade, except in Standard of Indiana and Standard of Ohio territories where premium for Ethyl Gasoline is 2.5 cents.

### Southern District

STANDARD OIL CO (KENTUCKY)

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wagon | Service station | Inc'lds tax | tank wagon |
| Atlanta, Ga. | 19.0 | 19.0 | 7.0 | 10.0 |
| Augusta | 19.0 | 19.0 | 7.0 | 9.0 |
| Macon | 19.0 | 19.0 | 7.9 | 12.0 |
| Savannah | 19.0 | 19.0 | 7.0 | 14.0 |
| Birm'ham, Ala. | 21.0 | 21.0 | 8.0 | 11.0 |
| Mobile | 17.0 | 17.0 | 8.0 | 8.0 |
| Montgomery | 22.0 | 22.0 | 8.0 | 14.0 |
| Jackson, Miss. | 16.0 | 16.9 | 7.0 | 12.0 |
| Vicksburg | 16.0 | 16.0 | 7.0 | 12.0 |
| Jack'ville, Fla. | 19.0 | 19.0 | 8.0 | 12.5 |
| Miami | 19.0 | 19.0 | 8.0 | 12.0 |
| Pensacola | 19.0 | 19.0 | 8.0 | 14.0 |
| Tampa | 19.0 | 19.0 | 8.0 | 10.0 |
| Lexington, Ky. | 18.5 | 18 5 | 6.0 | 10.0 |
| Covington | 17.0 | 17.0 | 6.0 | 11.5 |
| Louisville | 16.0 | 16.0 | 6.0 | 10.0 |
| Paducah | 19.0 | 19.0 | 6.0 | 9.0 |

In addition to the state tax of 4 cents on gasoline, Montgomery has city and county tax of 2 cents on gasoline and one-half cent on kerosene. Kerosene prices in Georgia include 1-cent tax. In Florida, an inspection fee of 6.125 cent; in Alabama, an inspection fee of one-half cent on kerosene and one-fortieth cent on gasoline. To Pensacola, Montgomery and Birmingham state taxes add 1-cent tax. To Mobile state tax add 1-cent city tax. Dealers receive discount of 3 cents off tank wagon price throughout territory.

### Southwestern District

MAGNOLIA PETROLEUM CO.

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wagon | Service station | Inc'lds tax | tank wagon |
| Dallas, Tex. | 12.5 | 15.0 | 5.0 | 7.5 |
| Fort Worth | 12.5 | 15.0 | 5.0 | 7.5 |
| Houston | 13.5 | 15.0 | 5.0 | 8.0 |
| San Antonio | 12.5 | 15.0 | 5.0 | 8.0 |
| El Paso | 13.5 | 15.0 | 5.0 | 8.0 |
| Texarkana | *14.0 | 14.0 | 5.0 | †11.0 |
| Muskogee, Okla. | 12.5 | 15.0 | 5.0 | 6.9 |
| Okla. City | 11.5 | 14.0 | 5.0 | 8.0 |
| Tulsa | 12.5 | 15 0 | 5 0 | 8 0 |
| Ft. Smith, Ark.* | 13.5 | 13.5 | 5.0 | †9.0 |
| Little Rock | ‡16.9 | 16.9 | 7.0 | †10.0 |

*Less 2½ cents to dealers. †Less 2 cents to dealers. ‡Less 4½ cents to dealers.

### Standard Oil Co. (Indiana)

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wagon | Service station | Inc'lds tax | tank wagon |
| Chicago | 12.6 | 12.6 | 4.0 | 8.0 |
| Decatur, Ill. | 13.0 | 13.0 | 4.0 | 8.5 |
| E. St. Louis | 12 3 | 13.3 | 4.0 | 7.8 |
| Joliet | 13.0 | 13.0 | 4.0 | 8.5 |
| Peoria | 13.0 | 13.0 | 4.0 | 8.5 |
| Quincy | 12.8 | 12 8 | 4.0 | 8.3 |
| Davenport, Ia. | 13.1 | 13.1 | 4.0 | 8.6 |
| Des Moines | 13.1 | 13.1 | 4.0 | 8.6 |
| Mason City | 13.1 | 13.1 | 4.0 | 8.6 |
| Sioux City | 12.7 | 12.7 | 4.0 | 8 2 |
| Duluth, Minn. | 13.7 | 13 7 | 4.0 | 8 8 |
| Mankato | 13.3 | 13.3 | 4.0 | 8.8 |
| Minneapolis | 13 4 | 13 4 | 4.0 | 8.9 |
| LaCrosse, Wis. | 14.8 | 14.8 | 5 0 | 9 3 |
| Green Bay | 14.2 | 14.2 | 5 0 | 8.7 |
| Milwaukee | 13 7 | 13 7 | 5.0 | 8.2 |
| Madison | 13.9 | 13.9 | 5.0 | 8.4 |
| Detroit, Mich. | 13 5 | 13.5 | 4.0 | 9.0 |
| Grand Rapids | 13 2 | 13.2 | 4.0 | 8.7 |
| Saginaw | 13 5 | 13.5 | 4.0 | 9.0 |
| Evansville, Ind. | 14.0 | 14 0 | 5.0 | 8.5 |
| Indianapolis | 14.2 | 14.2 | 5.0 | 8.7 |
| South Bend | 14 5 | 14 5 | 5.0 | 9.0 |
| Fargo, N. D. | 15.1 | 15 1 | 4 0 | 10.6 |
| Huron, S. D. | 13.3 | 13.3 | 5.0 | 9.3 |
| Sioux Falls | 14.8 | 14.8 | 5.0 | 9.5 |
| K. C., Mo.* | 13.2 | 12 2 | 4.0 | 7.7 |
| Springfield* | 12.1 | 12.1 | 4.0 | 7.6 |
| St. Louis | 11.2 | 11.2 | 3.5 | 7.2 |
| St. Joseph* | 11.8 | 11.8 | 4.0 | 7.3 |
| Wichita, Kans. | 11.1 | 11.1 | 4.0 | 6.6 |
| Bartlesville, Okla. | 13.5 | 15.0 | 5.0 | 7.8 |

*State tax 2 cents, 1-cent city tax and 1-cent Federal tax.

Effective June 1, 1933—Discounts off tank wagon price to consumers on 500 gallons or more per month in territory outside of Chicago metropolitan area: 2 cents on Ethyl and Red Crown gasolines, and 1 cent on Stanolind gasoline. One-half cent additional discount in Chicago division.

Effective July 1, 1933—Discounts on resellers authorized agent's agreement made off the service station price throughout the territory as follows: 2.5 cents on Red Crown Ethyl and Standard Red Crown gasolines, and 1.5 cents on Stanolind gasoline. Half of reduction from normal service station price shall be absorbed by reseller up to maximum of 1 cent on all grades.

### Stanolex Furnace Oil in Chicago

Effective April 28, 1933, prices f.o.b. Chicago, tank wagon prices: No. 1 (36-40 lt. stw. zero), 100 gallons or more, 6¼ cents; No. 2 (30-34 stw. zero), 100 gallons or more, 5¾ cents; No. 3 (23-26 zero), 100 gallons or more 5¼ cents; No. 4 (12-16 zero), 300 gallons or more, 4½ cents. Viscosity of No. 4, 90-115 at 100° F.; No. 5, 4 cents; for less than specified quantities, add 1 cent.

### Fuel Oils

### Associated Distributors Prices

Spot market prices on 350 gallons or over deliveries, and top prices on contracts, respectively: 28-40, 6¼ and 7¼ cents; 32-36 light, 5¾ and 6¾ cents; 32-36 dark, 5¼ and 6¼ cents; 28-30, 4½ and 4¾ cents; 24-6, 4¾ and 5¾ cents; 18-22, 4 and 4½ cents. On deliveries of less than 350 gallons the spot price is one-half cent higher.

### Naphtha

| | Tank-Wagon | Car |
|---|---|---|
| Oleum spirits | 10.7 | 6.23 |
| V.M.&P. naphtha | 12.7 | 6.73 |
| Cleaners' naphtha | 13.0 | 9.23 |
| Stanisol | 13.0 | 9.23 |

Tank wagon prices f.o.b. Chicago, January 6, 1933. Each of above prices subject to discount of 1 cent per gallon for 150-gallon lots if covered by contracts.

### Rocky Mountain District

CONTINENTAL OIL CO.

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wagon | Service station | Inc'lds tax | tank wagon |
| Denver, Colo. | 14.0 | 16.0 | 5.0 | 11.0 |
| Pueblo | 14.0 | 16.0 | 5.0 | 12.5 |
| Grand Jnctn. | 16.0 | 18.0 | 5.0 | 14.5 |
| Casper, Wyo. | 15.0 | 17.0 | 5.0 | 10.0 |
| Cheyenne | 14.0 | 16.0 | 5.0 | 12.5 |
| Butte, Mont. | 20.0 | 22.0 | 6.0 | 17.0 |
| Billings | 20.0 | 22.0 | 6.0 | 15.5 |
| Great Falls | 20.0 | 22.0 | 6.0 | 17.0 |
| Helena | 20.0 | 22.0 | 6.0 | 17.0 |
| Salt Lake, Utah | 16.0 | 18.0 | 5.0 | 16.0 |
| Albu'que, N. M. | 14.0 | 17.0 | *7.0 | 12.0 |
| Boise, Idaho | 20.0 | 22.0 | 6.0 | 18.0 |
| Twin Falls | 20.0 | 22.0 | 6.0 | 18.0 |

*One-cent city tax.

Effective June 1, 1933, dealers and lease and license accounts will receive 2½ cents discount on regular gasoline in Montana, Colorado, Wyoming, Utah and Idaho.

### Central South District

STANDARD OIL CO. (LOUISIANA)

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wagon | Service station | Inc'lds tax | tank wagon |
| N. Orleans, La. | 16.8 | 17 8 | *7.0 | †11.0 |
| Baton Rouge | 16.0 | 17.0 | 6 0 | †10 0 |
| Alexandria | 16 9 | 17.9 | 7 0 | †8 5 |
| Lafayette | 17.1 | 18 1 | 7.0 | †10.0 |
| Lake Charles | 17.0 | 18.0 | 7 0 | †10.0 |
| Shreveport | 14 8 | 15 8 | 6.0 | †11.0 |
| Knoxville, Tenn. | 20 2 | 21 2 | 8.0 | 12 5 |
| Memphis | 18.6 | 19 6 | 8.0 | 10 0 |
| Chattanooga | 19.9 | 20 9 | 8.0 | 12 0 |
| Nashville | 19.5 | 20 5 | 8 0 | 10 0 |
| Bristol | 20.1 | 21.1 | 8.0 | 13.0 |
| Lt. Rock, Ark. | 17.9 | 18.9 | 8.0 | 10.0 |

*Includes city tax of 1 cent. †Louisiana kerosene prices include 1-cent state tax. New Orleans kerosene price also includes 1-cent city tax.

Effective June 2, 1933, station price fixed at 7 cents above basic tank car price at key refining points in territory. Discount to cash customers 2 cents off station price. Commercial consumers for tank wagon delivery pay following amounts over tank car price basis yearly deliveries:

| | |
|---|---|
| 1,000 to 75,000 gallons | 2.5 |
| 75,000 to 300,000 gallons | 1.5 |
| Over 300,000 gallons | 1.0 |

### Nebraska

STANDARD OIL CO. (NEBRASKA)

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wagon | Service station | Inc'lds tax | tank wagon |
| Omaha | 14.3 | 15.3 | 5.9 | 8.0 |
| McCook | 15.8 | 16.8 | 5.0 | 8.5 |
| Norfolk | 14.8 | 15.8 | 5.0 | 8.0 |
| N Platte | 15.8 | 16.8 | 5.0 | 9.0 |
| Scottsbluff | 15.8 | 16.8 | 5.0 | 9.5 |

Note — Dealers' discount allowed as follows: Red Crown Ethyl, 2 cents off station price; Red Crown, 2½ cents off normal service station price; Nebraska Blue (third grade), 1 cent off normal service station price.

### Atlantic Coast District

STANDARD OIL CO. (NEW JERSEY)

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wagon | Service station | Inc'lds tax | tank wagon |
| Atl'tic City, N.J. | 16.2 | 17.2 | 4.0 | 11.2 |
| Newark | 15.4 | 16.4 | 4.0 | 8.5 |
| Annapolis, Md. | 16.8 | 17.8 | 5 0 | 9.0 |
| Baltimore | 16.3 | 17.3 | 5.0 | 8.0 |
| Cumberland | 17.8 | 18.8 | 5.0 | 11.7 |
| Wash'g'n, D. C. | 14.5 | 15.5 | 3.0 | 10.0 |
| Danville, Va. | 18.9 | 19.9 | 6.0 | 9.9 |
| Norfolk | 17.4 | 18.4 | 6.0 | 10.3 |
| Petersburg | 18 2 | 19.2 | 6.0 | 11.4 |
| Richmond | 17.8 | 18.8 | 6 0 | 10.7 |
| Roanoke | 19.0 | 20 0 | 6.0 | 11.0 |
| Charle's, W. Va. | 17.2 | 18.2 | 5.0 | 11.6 |
| Parkersburg | 16 5 | 17.5 | 5.0 | 10.2 |
| Wheeling | 17.2 | 18 2 | 5.0 | 11.2 |
| Charlotte, N. C. | 20.6 | 21.6 | 7 0 | 12.5 |
| Hickory | 20.9 | 21.9 | 7.0 | 12.7 |
| Mt. Airy | 20.9 | 21.9 | 7.0 | 12.8 |
| Raleigh | 20.4 | 21.4 | 7 0 | 12.3 |
| Salisbury | 20.7 | 21 7 | 7.0 | 12.6 |
| Charleston, S.C. | 18.4 | 19.4 | 7.0 | 10.3 |
| Columbia | 20.2 | 21.2 | 7.0 | 12.2 |
| Spartanburg | 20.6 | 21.6 | 7.0 | 12.5 |

Note—Dealer contracts for gasoline are written at 2½ cents over the posted tank car price. A 2-cent discount allowed for cash at all service stations. Kerosene 1 cent off tank wagon for 25 gallons or more under contract except New Jersey and Baltimore, Md.

### Pennsylvania-Delaware and Part of New England

ATLANTIC REFINING CO.

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wagon | Service station | Incl'ds tax | tank wagon |
| Pittsburgh, Pa. | 13.5 | 14 5 | 4.0 | 9.5 |
| Philadelphia | 13.5 | 14.0 | 4.0 | 9.0 |
| Scranton | 13.5 | 14 5 | 4.0 | 9.0 |
| Allentown | 13 5 | 14 5 | 4.0 | 9 0 |
| Altoona | 13.5 | 14.5 | 4.0 | 9.5 |
| Erie | 13.5 | 14.5 | 4.0 | 9.5 |
| Dover, Del. | 13 5 | 14 5 | 4.0 | 9 0 |
| Wilmington | 13 5 | 14.5 | 4.0 | 9.0 |
| Springf'd, Mass. | 16.1 | 17.1 | 4.0 | 8.0 |
| Worcester | 16.0 | 17.0 | 4.0 | 8.0 |
| Boston | 15.5 | 16.5 | 4.0 | 8.0 |
| Providence, R.I. | 14.5 | 15.5 | 3.0 | 8.0 |
| Hartford, Conn. | 14.9 | 15.9 | 3.0 | 8.0 |
| New Haven | 14.7 | 15.7 | 3.0 | 8.0 |

Discount schedule effective November 1, 1932. In Delaware and Pennsylvania, 2 cents off station price on purchases of 2,000 gallons or more per month, in remainder of territory 1 cent. Wholesale discount 2½ cents per gallon on monthly deliveries of 20,000 to 100,000 gallons, 3 cents on 100,000 to 300,000 gallons, and 3½ cents on more than 300,000 gallons.

### New York and Part of New England District

STANDARD OIL CO. (NEW YORK)*

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wagon | Service station | Inc'lds tax | tank wagon |
| Albany, N. Y. | 15.6 | 16.6 | 4.0 | 9.0 |
| New York | 11.5 | 14 5 | 4.0 | 8.0 |
| Buffalo | 16.5 | 17.5 | 4.0 | 9.0 |
| Rochester | 16.7 | 17.7 | 4 0 | 9.0 |
| Syracuse | 16 3 | 17 3 | 4.0 | 9.5 |
| Boston, Mass. | 15.5 | 16.5 | 4.0 | 8 0 |
| Augusta, Me. | 17.0 | 18.0 | 5.0 | 9.0 |
| Manch'tr, N. H. | 17.7 | 18.7 | 5.0 | 8 0 |
| Burlington, Vt. | 18.3 | 19.3 | 5.0 | 8.5 |

*Discount schedule to commercial accounts are as follows: At service stations, 1 cent per gallon; tank wagon deliveries up to 20,000 gallons monthly, 2 cents per gallon; 20,000 to 100,000 gallons, 2½ cents; 100,000 to 300,000 gallons, 3 cents; 300,000 gallons and up, 3½ cents.

### Pacific Coast Territory

STANDARD OIL CO. OF CALIFORNIA*

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank truck† | Posted retail | Incl'ds tax | tank wagon |
| Fresno | 19.5 | 15.0 | 4.0 | 14.0 |
| San Francisco | 19.0 | 17.5 | 4.0 | 12.5 |
| Los Angeles | 18.0 | 16.5 | 4.0 | 12.5 |
| Reno, Nev. | 23.5 | 21.0 | 5.0 | 16.5 |
| Portland, Ore. | 21.0 | 19.5 | 5.0 | 13.5 |
| Seattle, Wash. | 22.0 | 20.5 | 6.0 | 13.5 |
| Tacoma | 22.0 | 20.5 | 6.0 | 13.5 |
| Spokane | 25.0 | 23.5 | 6.0 | 18.0 |
| Phoenix, Ariz. | 18.5 | 20.0 | 6.0 | ‡16.0 |

*Retail prices posted by Standard Stations, Inc., a subsidiary.

†Above prices are at company's plant or depots as company does not operate stations. A 4-cent per gallon discount is given dealers and customers taking tank wagon lots except in Phoenix where the discount is 1 cent. ‡Includes 5-cent state tax.

### Ohio

STANDARD OIL CO. (OHIO)*

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wagon | Service station | Inc'lds tax | tank wagon |
| Ohio points | 15.5 | 16.0 | 5.0 | *13.0 |

*Two cents off on gasoline tank wagon to dealers and commercial accounts; 2½ cents off tank wagon and kerosene to dealers.

### Canada*

IMPERIAL OIL, LTD.
Imperial 3-Star Gasoline

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wagon | Service station | Inc'lds tax | tank wagon |
| Hamilton, Ont. | 22.5 | 25.5 | 6.0 | 15.5 |
| Toronto, Ont. | 22.5 | 25.5 | 6.0 | 15.5 |
| Brandon, Man. | 29.0 | 32.5 | 7.0 | 17.5 |
| Winnipeg, Man. | 26.0 | 29.5 | 7.0 | 17.5 |
| Regina, Sask. | 29.0 | 32.0 | 6.0 | 21.5 |
| Saskatoon, Sask. | 31.0 | 35.0 | 6.0 | 23.5 |
| Edmonton, Alta. | 29.5 | 33.5 | 6.0 | 22.5 |
| Calgary, Alta. | 26.0 | 30.0 | 6.0 | 20.0 |
| Vancouver, B.C. | 26.5 | 29.5 | 7.0 | 22.5 |
| Montreal, Que. | 22 0 | 25.0 | 6.0 | 15.0 |
| St. Johns, N.B. | 24.5 | 28.5 | 7.0 | 20.5 |
| Halifax, N.S. | 23.5 | 27.5 | 6 0 | 20.5 |

*Imperial gallon used in Canada.

### TANK WAGON CHANGES

Standard Stations, Inc., and the Standard Oil Co. of California advanced the gasoline station and tank wagon prices 1.5 cents on June 5.

Atlantic Refining Co. advanced the gasoline tank wagon and station prices a fraction of a cent at each point in Massachusetts, Connecticut, and Rhode Island on June 3 as shown in the accompanying table.

Continental Oil Co. reduced the gasoline tank wagon price 1 cent in Montana except in Butte, on June 1. On the same date the station price was reduced 1 cent at all Montana points. On June 1 similar changes were made in Colorado, Wyoming, Utah and southern Idaho except that at Boise, Idaho, the tank wagon price was advanced 1½ cents. The new prices are shown in the accompanying table.

Standard Oil Co. of Kentucky reduced the gasoline tank wagon and station prices 1 cent to 19 cents in Pensacola, Fla., on May 25. On the same date the kerosene price was reduced in Tampa, Fla., to 10 cents. On June 2 the gasoline tank wagon and station prices were advanced 1 cent in Atlanta, Ga., and Augusta, Ga. On May 31 the gasoline tank wagon and station prices were reduced one-half cent in Vicksburg, Miss.

Magnolia Petroleum Co. advanced the gasoline tank wagon and station prices to 16.9 cents each in Little Rock, Ark., with a 4½-cent discount to dealers, effective June 2.

### CHANGES IN GREAT LAKES LINE

In addition to the purchase of a 4 per cent interest in the Great Lakes gasoline pipe line by the Texas Co. announced recently a slight reapportionment of the interests of the other participants has occurred due to the Great Lakes company buying 3.8 per cent of the total from the Barnsdall Oil Corp.

Originally Barnsdall held a 20.8 per cent interest. Under the terms with which the various companies operated, Barnsdall was obligated to first offer any portion it wished to dispose of to the other participants. Following the Barnsdall offer to sell 10.8 per cent of its 20.8 per cent interest the Texas Co. was permitted to take 4 per cent, Great Lakes absorbed 3.8 per cent and the remaining 4 per cent is being held for the proposed purchase by the Skelly Oil Co.

### DEATH OF F. G. SHREVES

F. G. Shreves, president of the Denver Producing & Refining Co., died on Friday, June 9, in Oklahoma City, age 69 years.

Mr. Shreves was a veteran oil man, having begun his career in Pennsylvania at the age of 14 years as a lease worker. He worked in the producing and later in the refining ends of the industry in the eastern states and then moved to the West. His company developed into one of the best known exploring concerns in the Mid-Continent Field and was prominent in the Okmulgee and Oklahoma City Fields, as a producer.

# NEWS FOR SALES DEPARTMENTS

## Condemn Superior Claims Made for New Motor Fuels

NEW YORK, June 12.—In connection with the various claims now being put forward by oil companies in connection with the new grades of motor fuels they are marketing on eastern markets, Colonial-Beacon company, in a display advertisement in New York papers captioned "A Challenge and a Warning," says:

"The oil companies are all fighting desperately for your gasoline patronage. Such a fight is legitimate and for the good of all, when the methods used to get your patronage are kept within proper bounds.

"However, it is only fair to point out to you that if you believe the exaggerated nonsense that is now appearing in much of the gasoline advertising you are doomed to disappointment.

"These claims about 'superability', about 'quick starting', 'antiknock', 'mileage', 'power', etc., are exaggerations that just don't make common sense. Why let yourself be fooled?

"In offering you Essolene, this company's new motor fuel, we make no claims. We do guarantee smoother performance for Essolene. We do remind you that the Colonial-Beacon Oil Co., Inc., with its thousands of Esso stations and dealers will always pioneer in improvements for the public's good. And we state that this organization in making such a guarantee is fully aware of the importance of such a public statement made over its signature. We stand squarely back of Essolene as a great advance over gasoline—challenge to all gasolines."

Essolene is one of the new motor fuels recently made available in this territory and contains tetraethyl lead under the Q brand license from the Ethyl Gasoline Corp.

## Australia and Rumania Make Barter Arrangement

NEW YORK, June 10.—Oil news from abroad during the past week, on the whole, was rather unencouraging. Rumania has concluded a trade agreement with Australia, whereby the latter will draw considerable oil supplies from Constanza, in exchange for Rumanian buying of wool and other raw materials. The status of the Rumanian curtailment pact appears in some doubt, with indications that that country may soon resume unrestricted production and exports, as the result of the failure thus far to reduce production of crude in the United States.

Recent advances in crude and products, f.o.b. U. S. Gulf, however, as well as the improved outlook for curtailment in this country, may yet sway Rumania to a continuance of its compact with the world companies. Counteracting these unfavorable developments, however, was the disclosure that the Soviet has turned to the U. S. Gulf for gasoline and other products to supply its British marketing organization, during the period of the British embargo against Russian imports, and the indicated recovery in exports of refined products from the United States to South America also sounded a more constructive note.

### RADIO EQUIPPED TANKERS

Complete, modern radio equipment is being added to the eight tankers in the fleet of the Associated Oil Co. Similar equipment was also recently added to practically all tankers in the service of the Standard Oil Co. of California and the Union Oil Co. Included in the contract covering their installation is a provision for radio telegraph service.

## Oil Companies Displaying More Interest in Burner Oils at Chicago Meeting

CHICAGO, June 13. — The successive annual meetings of the American Oil Burner Association mark a gradual abandonment by oil companies of the policy of considering their operations as a gasoline setup calling for no particular effort to improve other materials and expand the markets for "by-products," according to Harry F. Tapp, executive secretary of the association which is holding its 1933 sessions at the Stevens Hotel, June 12-16, inclusive.

"The oil companies, with a growing number of exceptions," Mr. Tapp said, "appear as oblivious to a huge source of income, the burning oil business, as the early refiners who saw only a passing fad in the automobile and held steadfastly to the production of kerosene. Three years ago two oil marketers took sufficient interest in the burning oil business to participate in the annual convention and exhibition of the American Oil Burner Association. This year, only the reorganization that is being effected in the Chicago Oil Burning Institute prevented the participation en masse of more than a score of independent marketers.

"The latter part of 1932 witnessed the beginning of an intensive campaign on the part of a number of eastern oil companies to win acceptance among the public for oil burners and ranges, just as the electric companies had promoted electric refrigerators. Fine editorials in The Oil and Gas Journal have pointed this way to prosperity for the oil companies, and special articles, such as the presentation of L. F. Speare and C. B. Cooley in the May 25 issue of this year, give concrete proof of the fact that an important source of steady profit is being overlooked by all but a mere handful of oil companies. Suitable distillates, particularly those to be used in the modern range (cooking) stoves and small space heaters, retail for as much or slightly more than straightrun gasoline, minus taxes. With as much care and research devoted to the manufacture of burning oils as is given to gasoline production, the oil companies can build up a demand for their light and heavy fuels which will compare favorably in importance with that of motor fuels.

"The small range burner has been developed far beyond the troublesome kerosene and distillate wick and sleeve type units of a few years ago. The efficiency of the new oil cook stove is unusually high, rating above 95 per cent, and carbon deposition has been localized for easier cleaning much in the manner that a reaction chamber avoids coke formation in inaccessible points in the cracking installation.

"It is impossible to attach too much importance to the specifications of burning oils, particularly those to be used in ranges. Tests have been made to ascertain the merit of the Conradson carbon test in determining the suitability of distillates for use in ranges, and the results indicate that this test allows too much latitude. Some modification of the lamp test for long burning oils appears likely to satisfy the requirements. No importance whatever, except in estimating calorific value, is attached to gravity. The viscosity and flashpoint are of prime importance. At this time it is understood that Technical Committee C of the A.S.T.M. is considering a more definite demarcation between the light and the heavy fuel oils by raising the viscosity specifications of the No. 4 oil to 250 sec. @ 100° F.

"It is well known that the oil burner business, and the business of the burning oil distributor have been harrassed by racketeering, and marked by somewhat bitter competition, but the value of harmony is being recognized. In Omaha, Neb., the oil marketers sell a certain grade of oil for 6 cents a gallon, or 6½ cents a gallon with servicing. When the burner requires servicing the marketer furnishing the oil turns over the repair job to the dealer handling the burner in question. In this way, none of the dealers feels that he recommended one oil above another for his personal advantage.

The oil burner and range exhibits are expected to draw more than 15,000 visitors, while between 3,000 and 4,000 members of the association are expected to attend the sessions. Morgan J. Hammers, vice president and general manager of Petroleum Heat & Power Co., is president of the association.

## Negotiating for Sale of Australian Marketing Unit

LOS ANGELES, Calif., June 10.—According to reports here the Union Oil Co. of California is negotiating for the sale of its one-half interest in the Atlantic Union Co., Ltd., marketing organization in Australia and New Zealand. The amount involved is $5,000,000. A large eastern oil company is the prospective purchaser.

Atlantic Union Co., Ltd., has a capital setup of 500,000 shares of £1 par value each, of which 300,000 shares issued are owned by Union Atlantic incorporated in Delaware with a structure of 100,000 shares of no par value, of which 60,000 shares have been issued. The issued stock is evenly divided between Union Oil of California and Atlantic Refining.

The operating unit consists mainly of storage facilities, bulk terminals and sales depots throughout Australia and New Zealand. According to recent compilation the company has more than 250 sales depots in its territory besides dealers' connections.

## Industrial Recovery Act Costly to Oil Industry

An extra half a cent a gallon Federal tax on gasoline will pay $1,068,765,000 of the cost of financing the $3,300,000,000 appropriation that goes with the Industrial Recovery Bill. In return $400,000,000 will be spent in the states on highways over the 15-year period, the allotments for highway purposes to be divided under the plan of distribution of the Federal Road Aid Act—one-third according to population, one-third according to post road mileage and one-third according to area. Originally it had been proposed that the funds be divided on the basis of 50 per cent according to population and 25 per cent each according to post road mileage and area. Annual taxes to be paid by motorists under the one-half cent tax are estimated at $71,251,000.

## Government Makes Tests of Alcohol-Gasoline Blends

By C. E. KERN

Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., June 9.—Tests were conducted here today of the values of alcohol blend as a motor fuel. Five automobiles were used running over a measured mile, using blends ranging from 1 to 12 per cent of alcohol. The test cars were both high and low compression.

These experiments were inaugurated by the American Automobile Association and Representative Dirksen, Republican, of Illinois, author of legislation to require the use of alcohol as a blend with gasoline as a means of farm relief. Experts of the Bureau of Standards under the direction of Dr. H. C. Dickinson, chief of the heat and power division and president of the Society of Automotive Engineers, took a prominent part in the proceedings.

A large number of other prominent government officials were present and observers included Dr. J. F. T. Berlinger, Wilmington, Del., chemist; Dr. Leo M. Christianson, University of Iowa; P. F. Picerelli, New York, chemist; S. Bevin, Tide Water Oil Co.; and Prof. G. G. Brown, of the University of Michigan.

The cars were driven at a speed of 45 miles up to the start of the course, the regular gasoline then cut off and the car held at the same speed throughout the 1-mile course with the blended fuel.

The result of the experiments will be announced next week.

## Companies Favor Amber Color for Q Brand Ethyl

An amber or bronze color will characterize the Q brand of Ethyl Gasoline sold by many licensees. This is due in part to the yellow color of the fluid and because many feel that it will be distinctive. The gasoline cannot be advertised so a somewhat uniform color is expected to popularize it. Purchasers will be attracted to the stations because of the color, at least if the stations display the red Ethyl Gasoline and the amber or bronze second grade. That thought would still permit distributor to color the third grade to his individual taste.

The Barnsdall Refining Co., Mid-Continent Petroleum Corp., Phillips Petroleum Co., Continental Oil Co., Pure Oil Co. and the Skelly Oil Co., as participants in the Great Lakes Pipe Line have adopted the amber or bronze color. Some of these have been carrying that color for their house brands for many months while the change in the case of each the Phillips Petroleum Co. and Barnsdall Oil Co. is comparatively recent.

The Great Lakes Pipe Line Co. is now equipped to blend the second grade as well as the regular grade Ethyl Gasoline at its terminals and practically none of this is being done at the refineries. Although no specifications have been established for octane number on the Q brand, other than the limitations outlined by the Ethyl Gasoline Corp. the tendency has been to increase the octane number since the second grade of Ethyl has been adopted by these companies.

### GULF BUYS 60 TRUCKS

The Gulf Refining Co. has given the White Motor Truck Co. a contract for 60 trucks to be placed in transportation service for the marketing branch of the company. These will be fitted with tanks and auxiliary equipment for this service.

# NEWS FOR PETROLEUM REFINERS

## Standard of Ohio Announces Changes in Sales Policies

The Standard Oil Co. of Ohio effective June 14 adopted a new price policy covering gasoline sales in Ohio on a tank car basis and also tank wagon and service station prices. The plant in general is similar to that recently adopted by the Standard Oil Co. of New Jersey and its marketing subsidiaries. In the case of the Ohio Standard the base price for gasoline will be the Oklahoma (Group 3) price as determined by daily publications.

The Oklahoma base price will be the low of the price for 65 octane gasoline. To this price will be added 2.25 cents per gallon in establishing a base price in Ohio. The third grade gasoline which has an octane rating of 59 and below will have a base price of .25 cent lower than the regular. All jobbers buying from the Standard of Ohio will pay the base tank car price in Ohio. Controlled dealers will pay the net price of 2 cents above the base price for regular gasoline. This cost figure includes all rental allowances. Open dealers and commercial tank wagon consumers will pay the base price plus 2.50 cents for regular gasoline. The posted service station price will be the base price plus 7.50 cents.

A 2-cent cash discount will be allowed for cash at all company-owned and operated service stations and at authorized agents on Ethyl, X-70 and Renown Green. Commercial consumers buying at service stations on credit will pay the cash price. Noncommercial credit customers will pay the posted price. Coupon books will sell for net cash only.

A Q.D.A. will be allowed to contract tank wagon customers. Buyers of up to 6,250 gallons per month will pay the open dealers price or base price plus 2.50 cents; buyers of 6,250 to 25,000 gallons per month will pay controlled dealers price or base price plus 2 cents; buyers of more than 25,000 gallons per month will pay 1 cent less than open dealers or base price plus 1.50 cents.

Where markets become depressed the company may share the lowered margins equally with authorized agents and dealers, but not below the point where authorized agents overall margins, including rentals equal 2.50, 2.50 and 1 cent on Ethyl, X-70 and Renown Green respectively; or dealers margin below 2, 2 and 0.50 cents.

The company policy also will be to share margins with jobbers down to 4.50 cents, but privilege is reserved of not protecting individual jobbers, authorized agents or dealers. The tank wagon price to commercial consumers in depressed areas always will equal the local tank wagon price to open dealers.

Garages in the future will get open dealer tank wagon price and not be subject to lease and agency agreements. Hauling or yard prices will be abolished although the company may employ strictly commission salesmen on trucks carrying full company insignia.

All contracts at variance with the new plan will be revised not later than midnight June 30.

### PLANTS IN MISSISSIPPI

JACKSON, Miss., June 13.—Two skimming plants have been proposed for Jackson providing lower freight rates may be obtained on East Texas crude to this city. One project is the proposal of Charles Wright and E. T. Moor, who recently sold their refinery in the East Texas Field. The other proposal was made by E. F. Griswold.

## Demand for Special Solvents Increases With Improvement in Tire Shipments

With the rubber industry showing an improvement in business, orders for petroleum solvents used in the manufacture of tires and rubber goods are increasing. No accurate check has ever been made covering the volume of petroleum solvents and naphthas by the rubber industry, but it is estimated that the total under normal conditions is around 500,000 gallons monthly.

While in general the rubber manufacturers require naphthas of approximately the same specifications, there are enough differences so that refiners supplying that trade are usually required to make special products for each company. In the purchase of these naphthas the rubber companies first test the products offered by the sellers. If found acceptable the manufacturers are placed on the approved lists and are permitted to bid from time to time on the business to be placed. Most of the companies have special names for the products which they require.

#### Solvent Naphtha

One company recently changed the specifications for its solvent naphtha. The principal requirements are as follows:

Appearance—To conform to standard (No. 25 Fayholt).
Odor—Must be odorless.
Doctor test (sodium plumbite)—shall be negative.
Evaporation—25 cc. in Petri dish, inside diameter 4⅜ inches, inside height ⅝ inch, evaporated at room temperature. As rapidly as standard (approximately 1 hour 15 minutes).
Residue—No greasy residue.

**Distillation (Fahrenheit)**

| | |
|---|---|
| Initial boiling point | 104° -131° |
| 10 per cent | 121° -158° |
| 20 per cent | 143° -176° |
| 30 per cent | 152.6°-188.6° |
| 40 per cent | 165° -199.4° |
| 50 per cent | 172.4°-212° |
| 60 per cent | 181.4°-232.8° |
| 70 per cent | 192.2°-233.6° |
| 80 per cent | 203° -248° |
| 90 per cent | 221° -266° |
| 100 per cent | 257° -293° |

A.S.T.M. apparatus using ice water cooling bath.
Recovery—At least 97 per cent.
Acidity—Residue in flask after distillation shall not show an acid reaction.
On all material from new sources, or doubtful material, a compounding test will be made which will be the final and deciding test as to whether the material will be satisfactory or not.

Another company requires an initial of 100° to 110° F., 90 per cent 290°, and endpoint maximum of 305°. This product has a 69 to 72 A.P.I. gravity and must meet the dctor test with no gum. This company also buys D.C. naphtha having an initial boiling point of 192° F., 90 per cent 280°, and endpoint 320°. Maximum residue 1.5 per cent. The company also purchases a limited amount of hexane. This is a product of natural gasoline plants and has an A.P.I. gravity of 76 to 80, initial 138°, 90 per cent at 151°, and an endpoint of 155°.

The March 30, 1933, issue of The Oil and Gas Journal, page 88, gave the solvent specifications of another large manufacturer.

## New Wyoming Refineries in the Salt Creek Field

The Salt Creek Refining Co. has been organized by men identified with the Domino-Bessemer oil interests for the purpose of building and operating a 200-bbl. topping plant in the south end of the Salt Creek Field. The new company is incorporated for $10,000. The officers and directors are: President, A. E. Winter; secretary and manager, C. E. Littlefield, and the directors besides the officers named are C. R. Cantrell, Richard Nines and T. C. Spears. C. E. Littlefield is the agent and is in charge of the company offices.

R. S. Fleschmann and R. H. Staffay have taken over the Anderson properties, which were partially destroyed by fire recently, to rebuild and operate as a small skimming plant. Crude supply will be trucked from the Salt Creek and Teapot Fields.

Beck refinery at Cody, Wyo., is reported running to full capacity in order to supply the demand for road oil and tractor distillates in that district. The refinery is operating on Oregon Basin crude purchased from the wells of the Oneida Oil Co. and the Cody Petroleum Co. The charging capacity of the plant is 350 bbls.

### REDUCE INSPECTION FORCE

TOPEKA, Kans., June 13.—Seth G. Wells, state oil inspector for Kansas, will reduce the force of inspectors now on duty at the various ports of entry for the State by about 40 men immediately and another 20 men will be let out on July 1. The work will be concentrated in fewer men at some points and will be turned over to filling station attendants at others.

## Louisiana Corp. Promotes J. A. Welch and R. B. Pierce

SHREVEPORT, La., June 12.—C. M. Lamason, since 1928 executive assistant of the Louisiana Oil Refining Corp. and occupying the same position with the Arkansas Natural Gas Co. (Cities Service Co.) since its acquisition of the Louisiana corporation, resigned June 9 effective June 15. In addition to his duties as executive assistant he has been in charge of the refining and refinery sales divisions of the company's activities in this territory and is president of the Louisiana-Arkansas Refiners Association. He will be succeeded by R. B. Pierce in charge of refinery operations and J. A. Welch who will have charge of the sales department. Mr. Pierce also has been with the Arkansas Natural since it took over the Louisiana Oil Refining Corp., with which organization he had been associated, in the refining department, for several years previous. Mr. Welch also has been with the company for some time. Mr. Lamason plans a two months' vacation.

### BUREAU OF MINES PUBLICATIONS

The U. S. Bureau of Mines of the Department of Commerce released three publications the past week which are of special interest to refiners. They are:

"Petroleum Refineries, Including Cracking Plants in the United States, January 1, 1933," by G. R. Hopkins and E. W. Cochrane.

"Review of Fatalities in the California Petroleum Industry During the Calendar Year, 1932," by R. L. Marek.

"Accident Experience of Four Louisiana Petroleum Refineries," by E. B. Cash.

## Wyoming Officials Start Gasoline and Crude Price Probes

DENVER, Colo., June 12.—The State of Wyoming, through the office of the attorney general and the Board of Equalization, has launched two separate investigations of the oil industry in that State. The first action, which was brought by Atty. Gen. Ray E. Lee under the state antidiscrimination act, involves the retail price of gasoline and the second is directed towards a disclosure of facts regarding the price of crude oil. Both are made with the concurrence of Gov. Leslie A. Miller.

The attorney general cited the Standard Oil Co. of Indiana, the Continental Oil Co. and the Texas Co. to appear before him this week and show cause why their permits to do business in the State should not be canceled. This action is based on complaints of combinations to "prevent competition and to control and influence prices of gasoline in Wyoming." The order notified the companies that if the attorney general decided as a result of the hearing that they had practiced unfair discrimination he will start quo warranto proceedings to procure a court order to cancel their permits to do business.

The action inaugurated by the State Board of Equalization is more sweeping in its scope and is based on a request of the governor for a full and immediate investigation for the purpose of determining the posted price of crude oil, the actual sales prices of crude oil and the actual market value of all crude oil produced in each of the oil fields in Wyoming during each month of the past five years for the purpose of determining whether said oil as returned for assessment and taxation purposes is properly valued so as to bear its fair proportion of taxation under existing laws.

The Board of Equalization is going primarily into all questions involving the values of crude oil and refined products for taxation purposes and cites each and every producer, refiner and marketer of crude oil to appear at the offices of the board on August 15 and produce all books, records, papers and documents relating to prices, agreements, refining statistics, crude oil production and marketing. Officers and employes of the corporations and others acquainted with the records must answer the board's questions under oath. The records must cover the five-year period.

The resolution calling for the investigation was signed by C. H. McWhinnie.

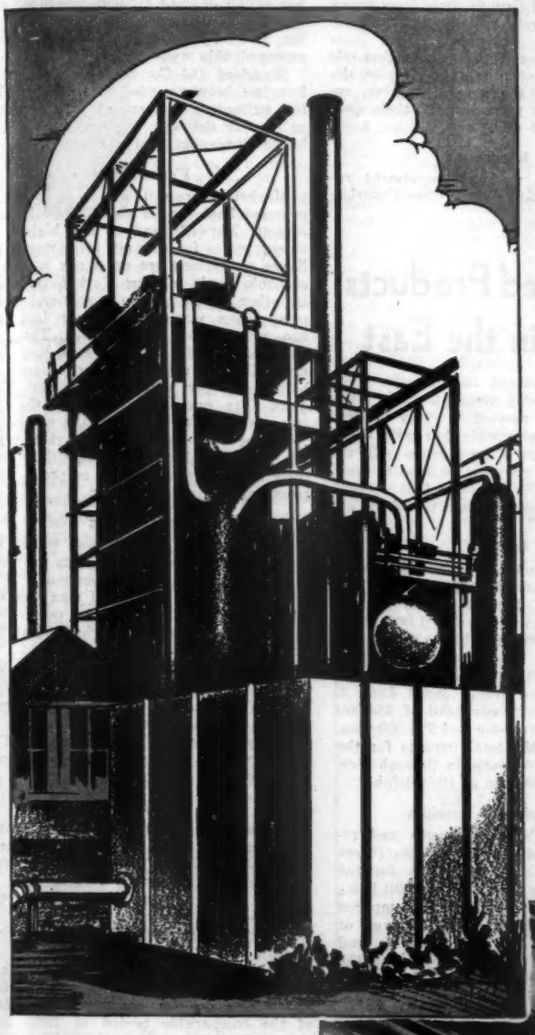
(Continued on Page 38)

### SUE ON BEHIMER PATENTS

Based upon cracking operations conducted by the Anderson-Prichard Refining Corp., at its plant at Cyril, Okla., the Texas Co. has filed suit alleging patent infringement. The suit, which was filed recently in the U. S. District Court for the Western District of Oklahoma, has been given Equity No. 1,485. The bill of complaint charges infringement of two Behimer patents described, respectively, as No. 1,840,012, granted January 5, 1932, for Apparatus for Making Gasoline, and No. 1,883,850, granted October 18, 1932, for Process for Making Gasoline. The action is being undertaken by the Texas Co. as owner and assignee of these Behimer patents.

The same patents are cited in suit brought by the Texas Co. against the Chalmette Petroleum Corp., which operates a refinery at Chalmette, La.

# ▸ ▸ ▸ *ANY SIZE* ▸ *ANY ANALYSIS* ▸ In TIMKEN Quality Refinery Tubes



Timken metallurgists have developed a variety of modern refinery tube analyses in alloy steel based upon the extensive research which has been carried on during the past four years.

These alloys, which cover practically every refinery requirement, include Timken 18-8; 5% chrome; 5% chrome with molybdenum; 5% chrome with tungsten; and carbon-molybdenum.

Where high creep strength is a major service factor, DM Steel will be found worthy of consideration.

Experienced refinery engineers and superintendents will appreciate the advantage of refinery tubes produced by an organization having such a broad background of steel and tube making experience, plus the extensive and modern manufacturing facilities found in the great Timken plants.

Timken refinery tubes are available in all the usual sizes and any practical analysis. It will pay you to consult Timken metallurgists regarding your future tube requirements.

THE TIMKEN STEEL AND TUBE COMPANY, CANTON, OHIO

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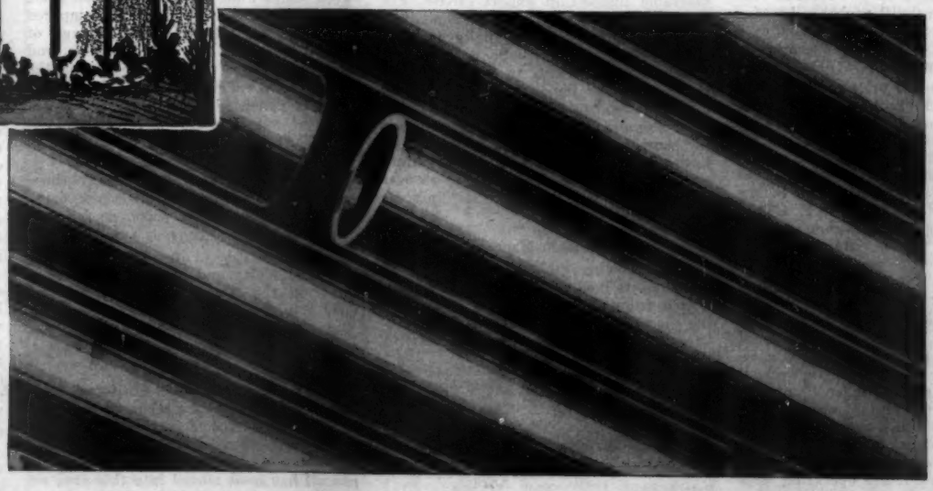

# TIMKEN STEEL TUBES

# East Coast Refinery Market Strong With Higher Prices Awaiting Crude Oil Developments

By A. E. MOCKLER
New York Bureau, The Oil and Gas Journal

NEW YORK, June 12.—Refined products continued in steady to strong position in the East Coast area during the past week, with a resumption in the upward price movement waiting only on the expected constructive price action in East Texas. Gallonage has shown a steady expansion during the week, and recent price advances in gasoline have been well sustained throughout the area. Considerable interest has been aroused over the recent change in marketing policy on the part of Standard Oil Co. of New Jersey and its subsidiaries, whereby posted service station prices are left to the discretion of independent dealers handling the company's brands. The plan is now in 100 per cent effect, with competing companies in many instances following the same policy, and its effect has been to greatly stabilize the retail price situation, it is reported. Confronted with the necessity of underwriting price wars out of their own funds, it is not believed that independent dealers will be so prone to resort to price cutting as a means of stimulating gallonage in the future, and this development in turn will have a healthy influence upon the operations of the major units.

There is a general expectation in eastern oil trade circles that crude oil in East Texas will be advanced to a posted level of 50 cents per barrel during the current month, and that this action will be the first step in an upward movement that will carry the market to $1 a barrel before the summer is over. With this bullish sentiment prevailing, refiners here are inclined to look for higher price levels on all refined products in the near future. Gasoline and bunker fuel oil will be the first products to reflect a crude advance, it is believed, although in view of the continued sharp competition for bunker oil business it is expected that the major refiners will probably be compelled to continue their concession of 5 cents per barrel on sales to operators of ocean-going steamships.

A number of minor price revisions have been made in the tank car market, as the trade in general swings over to the f.o.b. Gulf cargo gasoline price as the basis for its tank car prices in this area. Current quotations at principal East Coast tank car centers follow: U. S. Motor, below 65 octane, New York, 4.75 to 4.85 cents per gallon; Boston, 4.65 to 4.75 cents per gallon; Baltimore and Charleston, 4¾ cents per gallon; 65 octane and above, New York 4.90 to 5.15 cents per gallon; Boston, 5 to 5.15 cents per gallon; Baltimore and Charleston, 5 cents per gallon.

There was an active demand for gasoline in the tank car market throughout the week, the prolonged spell of hot weather tending to substantially increase consumption throughout the area. Jobbers have apparently discarded all idea of any price reduction in the immediate future, and, on the contrary, are operating with the idea of early advances in quotations. This has made for an active buying movement, with distributors keeping their storage full in anticipation of an appreciation in the value of their holdings.

Lubricating oil sales, generally regarded as an infallible barometer of industrial activity, indicate that recovery in various industries is progressing apace. There has been an exceptionally heavy volume of lub oil business during the past several weeks, and while the sharp price advances during the past fortnight have tended to slow volume down somewhat, considerable business has been done at prevailing price levels, and refiners report continued active inquiry for prompt and nearby shipment oil for domestic consumption.

In the export field, lub oil prices have apparently reached the point where definite sales resistance is being encountered, and the volume of cylinder oils booked for shipment abroad during the past week showed some falling off from the levels of the several previous weeks. Despite the lighter demand, however, refiners continued firm in their price views, and no changes in posted quotations developed.

Gallonage on red and pale engine oils is picking up steadily, but despite the firmer tone in the general market, refiners have not yet advanced their quotations on these oils.

### Kerosene

There was a moderate movement reported in the tank car kerosene market last week, and prices had firmed up somewhat, following the recent half-cent reduction. While some sellers continued to post 41-43 water white at 4¾ cents per gallon, leading refiners are now quoting 5 to 5¼ cents, with a recovery in the general market to the 5-cent level expected this week.

Standard Oil Co. of New York, Inc., has just been awarded an order for 40,000 gallons of kerosene at 4.95 cents per gallon for delivery to the U. S. Lighthouse Bureau at Staten Island, N. Y.

### Furnace Oil

Marketers are still active in lining up contract business for the 1933-34 heating season. Notwithstanding the higher refinery prices for this oil, tank wagon delivery quotations are on a par with last season's levels in New York City, while in other parts of the territory, where competition was much keener last season, prices have been lowered. Thus, on the No. 2 grade, consumers in New Jersey will get deliveries next season at half-a-cent per gallon under the New York City quotations, whereas the differential was formerly just the reverse.

In the spot furnace oil market, trading was virtually at a standstill in both tank car and tank wagon markets, with prices remaining unchanged.

### Paraffin Wax

Spot domestic business was rather active during the week, and a firm to strong undertone prevailed throughout. Spot 130-132 a.m.p. fully refined wax was advanced 40 points to 3.70 cents per pound, other grades remaining unchanged at the previous week's levels.

In the export division of the market trading was rather quiet. Sellers advanced 125-127 a.m.p. 10 points to 3 cents per pound, but this advance was offset in part by a 5-point decline on 135-137 a.m.p., which was offered at 4.25 cents per pound for prompt shipment.

### Bunker Oil

Refiners continued bullish in their views on bunker oil, and while the market holds at 70 to 75 cents per barrel, bulk, f.o.b. refineries or terminals, it is held in trade circles that these quotations will be advanced immediately a higher crude price level is made effective in East Texas.

Tonnage of bunker oil business at East Coast ports during the first four months of the year declined somewhat from that of the comparable period of 1932, but the decline was not marked. The drop was due, in some measure at least, to the fact that practically the entire United States fleet is now berthed off the Pacific Coast, and fuel oil requirements by the Navy are being drawn mainly from Pacific Coast refiners.

In so far as commercial marine bunker oil business is concerned, the situation has improved materially during recent weeks. A number of steamship lines operating vessels in the intercoastal run are adding substantially to their fleets and sailing schedules, while transatlantic business is also on the mend, indicating heavier bunker oil consumption in this direction as well.

### Petrolatum

Domestic consumers were in the market for prompt and nearby shipment of petrolatums in good volume last week, and prices were well maintained on all grades.

Sellers reported that the bulk of the current buying was centering on the white grades.

## Exports and Imports of Refined Products; Receipts of California Oil in the East

NEW YORK, June 12.—Aside from the reported sale of three cargoes of East Texas crude, aggregating about 200,000 bbls., for July lifting from the Gulf for France, the export market was in quiet position throughout the past week. The crude business was reported booked at 70 cents. With the oil trade looking for an advance to 50 cents per barrel in posted prices in East Texas in the near future, and $1 oil by midsummer confidently predicted by many in the industry, exporters are still refusing to quote firm prices for crude for deferred delivery, unless they are actually covered on the oil themselves, and this naturally makes for a quiet market.

In the gasoline export market, trading was at a standstill, in so far as full cargoes were concerned. Recent price advances in export motor fuel at the Gulf have not been established by actual sales, and buyers are not yet convinced that the market can be maintained at the advanced levels.

The resumption of cargo shipments of refined oil from the United States to South American ports has aroused considerable interest in export circles. For the past year, a number of companies have been forced to virtually suspend export shipments to some countries in South America, owing to exchange difficulties and the impossibility of securing currency remittals to cover the cost of such shipments. The exchange situation is showing considerable improvement, however, and the American oil companies are beginning to make efforts to recover the ground which they have lost in some of these markets.

### Petroleum Exports

The following table shows exports of principal refined petroleum products reported from the port of New York during the three weeks ended June 3 (all figures in gallons unless otherwise noted):

| | Week ended | | |
|---|---|---|---|
| | June 3 | May 27 | May 20 |
| Gasoline | 92,000 | 125,000 | 12,000 |
| Naphtha | ..... | 240,000 | ..... |
| Kerosene | 3,000 | 147,000 | 20,000 |
| Fuel and gas oil | 1,675,000 | 225,000 | 1,000 |
| Lubricating oil | 725,000 | 3,613,000 | 815,000 |
| Petroleum, ref. | 56,000 | 260,000 | 7,000 |
| | Pounds | | |
| Petrolatum | 16,000 | 25,000 | ..... |
| Paraffin wax | 1,550,000 | 750,000 | 2,935,000 |
| Refined | 134,000 | 445,000 | ..... |
| Scale | 345,000 | 110,000 | 265,000 |
| Lub. grease | 435,000 | 550,000 | 925,000 |

Further advances in export prices for refined products have tended to slow down buying somewhat. On the initial upward move export buyers, who were short on supplies in many instances, were forced into the market to cover prompt and nearby requirements, but with these needs taken care of and prices still on the rise, buyers are now inclined to wait out the market in the hope that present advances will not be maintained in all instances.

### Imports

Imports of crude and refined petroleum at the principal United States ports for the week ended June 3 totaled 707,000 bbls., a daily average of 101,000 bbls., compared with 863,000 bbls., a daily average of 133,000 bbls., for the previous week, and a daily average of 103,357 bbls. for the four weeks ended June 3. The week's imports consisted of 484,000 bbls. of crude petroleum and 223,000 bbls. of fuel oil. Of the total imports for the week, 510,000 bbls. came in through New York and 197,000 bbls. at Philadelphia.

### California Oil Receipts

Receipts of California crude and refined oil at Atlantic Coast ports (there were no receipts at the Gulf) for the week ended June 3 totaled 183,000 bbls., a daily average of 26,143 bbls., compared with 661,000 bbls., a daily average of 94,429 bbls., for the previous week, and a daily average of 36,357 bbls. for the four weeks ended June 3. The week's receipts consisted of a cargo of 112,000 bbls. of gasoline landed at New York and 71,000 bbls. of gas oil landed at Baltimore.

At the close of the week only three cargoes of California oil were reported afloat for East Coast ports, as follows:

For New York—80,000 bbls. of gasoline on the Tide Water Oil Co. tanker David McKelvy and 117,000 bbls. of gasoline on the Sun Oil Co. tanker Mercury Sun.

For Tiverton, R. I.—75,000 bbls. of kerosene on the Associated Oil Co. tanker Betterton.

Practically all of the California gasoline moved eastward thus far in the year has consisted of intercompany shipments by California subsidiaries of eastern integrated companies. Considerable gas oil has been moved into this area on standing contracts held by California refiners, however, and there has been a fair open-market movement of kerosene, mostly into the New England territory, which has witnessed a sharp increase in kerosene consumption as a result of the widespread use of range oil burners.

# General Advance in Chicago Refinery Market Led by Important Gasoline Price Increases

By R. C. CONINE
Chicago Bureau, The Oil and Gas Journal

CHICAGO, June 12.—Gasoline tank car prices moved up sharply during the past week and on Monday advances shown in the seven-day period were as follows: U. S. Motor, third grade, from a range of 2 to 2⅛ cents, to a range of 2⅜ to 2⅞ cents; U. S. Motor, regular grade, from a range of 2¼ to 2⅝ cents, to a range of 3 to 3¼ cents; U. S. Motor, premium grade, from a range of 2½ to 2⅝ cents, to a range of 3¼ to 3½ cents. The high test gasolines, which had made an earlier advance, strengthened further pricewise to the following quarter-cent higher ranges: 64-66 375 endpoint gasoline, 3 to 3⅜ cents; 68-70 360 endpoint gasoline, 3⅛ to 3½ cents. The 60-62 400 endpoint gasoline matched the advance in the U. S. Motor grades, moving up to 2⅞ to 3 cents.

### Special Naphthas Advance

The special naphtha tank car markets, where competitive conditions have threatened seriously, rallied strongly with the ironing out of a few troublesome situations and in sympathy with the better feeling in the gasoline markets to advance a quarter of a cent down the entire list. The price ranges Monday were up as follows: Cleaners naphtha, 5¼ cents to 5½ cents; lacquer diluent, 180-250, 6½ cents to 6¾ cents; lacquer diluent, 140-200, 7½ cents to 8 cents; rubber solvent, 5¼ cents to 5½ cents; Stoddard solvent, 4⅜ cents to 5 cents; petroleum thinner, 290-415, 4½ cents and 4¾ cents; V.M.&P. naphtha, 5 cents to 5¼ cents; petroleum spirits, 340 initial, 4 cents to 4¼ cents. The advance in rubber solvent was from a range of 4¾ cents to 5¼ cents.

### Higher Kerosene Prices

The kerosene tank car markets Monday had advanced a quarter of a cent and were apparently due for another advance during this week. Refiners are refusing to sell this product, feeling that it is an asset rather than a liability and will bring a fair price when consumer demand picks up a little. There is not enough kerosene being made to cause any apprehension.

### Distillates Follow Hesitantly

With most of the inquiries now on distillates being more or less attempts to gauge markets for material later in the year, few of the quotations made could be taken as actual indices of current spot business. However, cars of materials which would have been rejected during the cold months have been moved at prices slightly higher than early last week, and the following ranges show advances of a quarter of a cent: 32-36 straw distillate, 1⅝ cents to 1¾ cents; 38-40 straw distillate, 1⅝ cents to 1¾ cents; 38-40 prime white distillate, 1¾ cents to 2 cents. The new kerosene prices are, 2⅜ cents to 2⅝ cents on the 41-43 water white material, and 2½ cents to 2¾ cents on the 42-44 water white kerosene. While there has been little demand for the 32-36 industrial gas oil, an advance of an eighth of a cent is noted. The new range is seven-eighths to 1⅛ cents.

### Refined Wax Stocks Drop

Although production of refined wax in April advanced to 37,800,000 pounds from a figure of 36,400,000 pounds in March, domestic and export demand for these waxes accounted for a decline in refined wax stocks from 136,785,000 pounds in March to 124,927,000 pounds in April, a drop of about 12,000,000 pounds. However, it is expected that refiners will watch demand and production for a few weeks before attempting to advance prices. An advance in white crude scale prices may anticipate a boost in the refined product prices.

### Fuel Oils Move Up

Certain refiners in Chicago district whose fuel oils have unusually good characteristics in respect to viscosity and sulphur have advanced their quotations considerably higher than the representative offerings. However, the bulk of specifications fuel oils being sold are bringing better prices, and the following advances are noted: 26-28 zero fuel oil, moved up from a range of 52½ to 57½ cents to a range of 55 to 60 cents; 22-26 zero fuel oil advanced from a range of 45 to 50 cents, to a range of 50 to 55 cents. A major whose 22-26 zero has a viscosity of 51 seconds at 100° F., is moving this material at 65 cents. The 18-22 zero material moved up from a range of 40 to 45 cents to a range of 42½ to 47½ cents, and the below 18 gravity fuel oils evidenced strong industrial call advancing from a range of 30 to 35 cents to a range of 37½ to 40 cents.

### Federal Tax Element Again

While most of the jobbers in Chicago district are reported to be running material taken on contract into storage at a high rate, much to the distress of many refiners who have had to go into the market themselves for materials, open market activity on the part of the jobbers is expected this week in anticipation of a Federal gasoline tax of an additional half-cent. It is generally held that the Federal tax will not apply to material held in storage by jobbers.

Major refiners in the district are reported to be buying gasoline in lots as high as 300 tank cars. One major is now buying from another major who a few weeks ago was taking gasoline from the present buyer, so the transaction may be in the nature of a trade. Other refineries are understood to be buying gasoline at a price near the going markets and turning this material over to contracted accounts at a considerable loss.

### Look for Retail Advance

Although at their best the gasoline tank car quotations today are nothing to be tempestiously happy about, and only slightly better in the regular and premium grades than they were when Standard Oil Co. (Indiana) brought its basic refinery prices in line with the competitive Group 3 tank car gasoline markets, and introduced the policy of basing service station and tank wagon prices on the Group 3 tank car markets, the anticipation of a crude oil price advance has prepared the trade in Chicago district for a general price advance in the retail markets.

In certain quarters shortly after the announcement that Standard Oil Co. (Indiana), effective July 1, would reduce Q.D.A.'s on authorized agents agreements (resellers) to 2.5 cents on Ethyl and regular, and 1.5 cents on Stanolind, and reduce rentals so that total discount should not go beyond a half cent higher than these figures, throughout the territory, including Chicago, it was argued confidently that recalcitrants would wreck this reform in short order. There were some grounds for this belief, just as there were grounds for the belief that competitive conditions would break down the special naphtha markets. On Monday it appears that basis for these fears has been removed, and now the question asked in connection with the discounts to resellers is, "when will the oil companies take off another half cent?"

### Antidiscrimination Laws Angle

There has been strong support in the district among certain majors for a marketing plan similar to that introduced recently in the East by Standard Oil Co. of New Jersey, in which the oil company does not attempt to name the prices at which the resellers shall market their gasolines. As pointed out in these columns several weeks ago, such a program was thought to be in effect when Standard of Indiana began taking an active part in the spot markets and was signing up a dozen or more of the more important price cutters in the district, naming tank car prices in line with the lowest offerings made by East Texas and Oklahoma sources. At that time it was understood that the Indiana Standard company was leaving the matter of the service station price to be posted up to the buyers. The trackage station operator could give his gasoline away or make a good profit. This innovation took many customers from other refiners, and in view of the fact that Allan Jackson, vice president in charge of marketing for the Standard company, had recommended a moratorium on taking business away from the other fellow, the Standard company decided to discontinue these new accounts, and presently the new reconstruction program was formulated and put into effect, an account of the latest development appearing in the June 8 issue of The Oil and Gas Journal.

It is now seen that the Standard company has taken a much milder course to accomplish the rehabilitation of the marketing end of the industry, and probably a much slower one. The feeling is more prevalent that the Indiana company is sincere in its avowals of seeking to promote sane marketing practices for the benefit of the entire industry. However, until this company feels justified in advancing the tank wagon and service station postings to a point where wide marginal contract refiners can pause to appreciate what other refiners hail as a great stride in the right direction, it is certain that many refiners can hardly be blamed if their attitude is bitter towards the whole plan of reformation.

Associations and other groups of the industry are busily engaged in studying the industrial recovery and control legislation now pending. In Chicago district it is contended that enactment of the control features into law will result in advancing petroleum product prices in line with 4 and 5-cent tank car gasoline. Some observers go so far as to predict a price of 6 cents, Group 3, on October 1, for the equivalent of the current third grade gasoline.

## Do You Remember?

From The Oil and Gas Journal Files

### 25 Years Ago

June 14, 1908

D. F. Connolly, of the Associated Producers Oil Co., has closed the purchase of the Treat, Crawford & Treat properties in Crawford, Lawrence and Clarke Counties in Illinois. The Ohio Oil Co. is moving about 100,000 bbls. a day out of the Illinois Field. The Associated Producers will lay a line to connect with the Tide Water pipe line which runs to Bayonne, N. J. The purchase involves 4,500 bbls. per day production and 8,000 acres of land.

John and Craig Cullinan, 14 and 16 years old respectively, sons of President Joe Cullinan of the Texas Co., have gone to work in the company's machine shops at Sour Lake, Tex.

### 20 Years Ago

June 19, 1913

The rotary system of drilling is coming into use in Rumania and Galicia, says O. P. Boggs, veteran American and Canadian oil man, just returned from a trip to those countries.

The old team and buckboard as a means of getting around oil fields is being superseded by the automobile.

It is reported in Houston, Tex., that the Waters-Pierce Oil Co. will act as distributing agent for the Royal Dutch-Shell combine.

The Wilhoit Refining Co.'s plant between Joplin and Webb City, Mo., has started running oil.

The Producers Oil Co. completes a 10,000-bbl. well on the Pitts property at Mooringsport, La.

### 10 Years Ago

June 14, 1923

With Oklahoma producing over 520,000 bbls. per day the proration of pipe line runs becomes more imminent.

The United States Cities Corp. and Lorraine Petroleum Co. completed a well in the Bristow Field, Oklahoma, that started off at 1,067 bbls. per hour and settled to 9,000 bbls. per day.

New regulations of the California Corporation Commission provide that before a company is permitted to drill a well for oil, sufficient funds must be impounded to cover the cost of the drilling.

The Pure Oil Co. dismantles 400 miles of the old United States pipe line between Bradford and Marcus Hook, Pa.

## Late Fields

### OKLAHOMA

Partial returns from potential tests in the Greater Seminole area are available. The West Asher Field in Pottawatomie County shows a decline of approximately 60 per cent. The new figures are 2 875 bbls. compared to 7.591 bbls. In the Carr City Field in Seminole County the present figures are 12,720 bbls. compared to 35,346 bbls., a decline of 64 per cent. In the Konawa Field, in Pottawatomie County, the present figures are 4.860 bbls. compared to 11,386 bbls., a decline of 57 per cent.

Four locations were staked in the Oklahoma City Field during the week. They include Frank Russell, Inc.'s No. 1, NW cor. SW SW SE Section 23-12-3w, a mile east of the state capitol and on the edge of the city. In the southwest part of the field the Beverly Hills Oil Co.'s No. 1 Davis, NE cor. NE NE NW Section 27-11-3w, on Block 2 of the Beverly Hills Suburban Ranches Addition. In the north end of the field the Inland Development Co.'s No. 1 River Bed, NW cor. SW SW NW Section 2-11-3w, on Lots 47 and 84 of Block 6, Armourdale addition. Harrell-Davis' No. 1 J. Davis, NE cor. SE NE NW Section 22-11-3w, on Block 5, Walnut Place Addition.

The United States Oil Corp of Denver has taken over the 9,000-acre block of leases and the wildcat test, No. 1 Roper, C SE NW Section 21-20-24w, Ellis County. The well was formerly carried as Algers Petroleum Co. and spudded about 50 feet. Drilling operations are expected to be resumed about June 15.

Another deep test may be started in Bryan County. Sibble & Freeman's No. 1 Gilbert, NE cor. SE SW Section 25-8s-7, is a location. A machine is expected to be moved in at once and the well drilled to 3,000 feet. It is located on a block of about 3,000 acres. The only test drilled in the vicinity was a 750-foot test well in Section 14, where several oil showings were found.

The Denver Producing & Refining Co.'s No. 1 Noe, NW cor. SW SW Section 34-10-10w, a wildcat in Caddo County, was drilling at 8 915 feet after completing a fishing job. It is the deepest drilling test in the State at this time.

Carter Oil Co.'s No. 1 Perkins, SE cor. NW SW Section 3-1s-3w, is a new location on a 20-acre tract. It is a wildcat test about a mile east of Boring and others' No. 1 Riddle, an 8,000,000-foot gas well.

### KANSAS

Clum, Washoma Petroleum Co. and others' No. 1 Nelson, NW cor. SE NW, Section 12-18-4w, a wildcat test in McPherson County, Kansas, may open another pool in that county. Sand at 1,965 feet carried 2,000,000 feet of gas a day and a core showed the sand to be oil saturated. The well was being drilled deeper, as it is believed the test is located on a structure and the chances are good for production in the deeper horizons. It may be plugged back if the deeper horizons are dry.

Ninnescah Oil & Gas Co.'s No. 1 Hardesty, C SW SE, Section 28-27-11w, a wildcat in Pratt County, found Wilcox sand at 4,395-4,427 feet. It started to fill with water at 4,414 feet. The crew is fishing for tools. The test found a showing of oil in the Kansas City-Lansing lime.

Stearns & Streeter's No. 1 Benso, SE cor. SW, Section 4-14-15w, Russell County, is a location offsetting the recently completed well of Billings and others, No. 1 Mermis, which made 168 bbls. a day from the Oswalt lime.

Skelly Oil Co.'s No. 2 F. C. Miles, CSL NE, Section 30-27-10w, Kingman County, flowed 315 bbls. of oil the first 24 hours after treatment with acid. It is producing from the Kansas City-Lansing lime at 3,362-3,479 feet. Before being treated it made 135 bbls. of oil in 13 hours.

Skelly Oil Co.'s No. 1 S. Miles, CNL SE, Section 30-27-10w, is a new location. It is the south offset to No. 1 F. C. Miles.

# Order Reducing East Texas Allowable Issued by Texas Railroad Commission

**The Bell Oil & Gas Co. of Tulsa announced that effective at 7 a.m. June 14 it would pay 50 cents a barrel for crude oil grading 40 gravity and above with a differential of 2 cents downward, in Oklahoma and North Texas, and 35 cents a barrel for Gray County crude in the Texas Panhandle.**

AUSTIN, Tex., June 13.—The Texas Railroad Commission tonight issued an order reducing the East Texas oil allowable production from 15 to 10 per cent of one hour's potential, bringing the field from 826.000 bbls. to approximately 573,000 bbls. per day. The order followed a hearing held Monday where most of the testimony was to the effect the former production was rapidly depleting bottom hole pressure of the wells. The new order is effective at midnight tonight.

Gordon Griffin, engineer for the Texas Railroad Commission, reported at the Monday hearing, that a majority of wells in East Texas will be forced on the pump within 60 days unless the rapid decline in pressure is checked. He testified the average bottom hole pressure decline for the field has been 2.4 pounds per day, between May 8 and June 8.

#### Pleas for Reduction

Before the hearing closed pleas were made to the commission to reduce the allowable to 400,000 or 450,000 bbls. These came from Rhodes S. Baker, John S. Kilgore, S. M. Leftwich, George Sears, Hines Baker, Charles I. Francis, Beeman Strong, Carl Estes and others. They insisted that it should not be more than 500.000 bbls.

Most of them wanted acreage considered as the major factor in any proration order, but Myron G. Blalock objected to any surface measurement.

T. L. Regan, petroleum engineer of the Stanolind, said there are now 300 pumping wells in the field with many others immediately to follow, his company alone to pump 80 of its 260 wells on 4,300 acres. Regan would not estimate the number of dead wells in the field, but said there were plenty. He knew of three that went dead Friday. He said there had been a drop of 2.5 pounds pressure in 1,000,000 bbls. in the last 30 days but that the decline had steadied under the leveling process.

#### Allocation Attacked

A protest was made against the method of allocating the field allowable, John S. Kilgore of Wichita Falls contending that the potential of individual wells could not be determined by key well tests.

"This merely gives the commission an estimate of the producing capacity of the area in which the wells are located and is not an accurate method of determining the performance of individual wells," Kilgore said.

Kilgore also protested that allocation on potential was a discrimination between the lightly and heavily drilled areas. He recommended that the commission consider acreage in its new order.

The effect of a large East Texas allowable on production in the stripper area was stressed by Kilgore and Charles I. Francis of Wichita Falls.

Francis expressed belief that the entire stripper area of Wichita Falls would be abandoned within a short time unless East Texas was curbed to a point where it would be profitable to operate the strippers.

"The present East Texas allowable is destructive for all concerned," Francis said.

"The existing allowable causes and does not prevent waste." Hines S. Baker, attorney for the Humble Oil & Refining Co., said.

Baker urged that the commission consider bottom hole pressure, acreage, sand thickness and porosity of sand in allocating production in addition to potentials.

Mr. Baker said an allowable as high as the present causes waste and any decline faster than 7 pounds is dangerous waste and should not be permitted.

#### Spacing Protest

Protest against a proposed change in the spacing of wells was made by Beeman Strong of Houston, representing the Yount Lee Oil Co. Suggestion had been made that operators be permitted to drill within 150 feet of property lines and that the spacing inside tracts be lowered to 300 feet. The present rule is 330 and 660 feet, respectively.

Mr. Strong argued that this would bring about a renewal of the chaotic conditions that have prevailed in the past and would result in great economic waste.

Mr. Francis, Mr. Strong and Carl Estes of Tyler urged the commission to consider the price of oil in fixing the allowable.

"We want a price for our oil and that's what the people of East Texas want," Mr. Estes said. "Every operator in the field that I have talked to is in favor of an allowable of between 400,000 and 450,000 bbls. with the exception of one."

Maurice Cheek, assistant attorney general, questioned Gordon Griffin, petroleum engineer for the commission, at length on the benefits to be derived by reducing the allowable from the present 15 per cent of the hourly potential to 10 per cent. Mr. Griffin said it would bring the allowable to 600,000 bbls. daily and would be of material benefit in checking excessive declines in the bottom hole pressure.

#### Surface Pressure Drops

Practical operators, in the main superintendents of production for large oil companies, testified that surface pressures in the various wells are dropping rapidly because of the high allowable and that in some instances the rapid withdrawals had caused wells to cease to flow. Practically all of the dead wells were resuscitated, however, by artificial means.

J. B. Dillard, of Longview, production superintendent for the Pilot Oil Co., said the closed-in pressure of 31 wells under his supervision had dropped from 252 pounds on April 1 to 189 pounds June 1, or 28.9 per cent, while the flowing pressure had dropped from 121 to 74 pounds in the same period, or 38.8 per cent, which he interpreted as a bad indication. The actual flow per well dropped from an average of 143 bbls. hourly to 78 bbls., he said.

J. L. Hicks, district superintendent for the Houston Oil Co., said declines in surface pressure in his company's wells caused more time to be needed in the flowing of the daily allowable, while T. W. Herring, production superintendent for the Yount Lee Oil Co., testified that the hourly potential of his company's wells had declined from 17,022 bbls. May 1 to 14,784 bbls. June 1, or 13.1 per cent. O. H. Myers, assistant to the production superintendent of Cranfill-Reynolds, told similar conditions, as did A. Julian, production superintendent for the Texas Co. D. E. Legan, production superintendent of the Tide Water Oil Co., testified that six of his company's wells were used as key wells by the commission in making potentials and that on the second test made, the potential showed a decrease of 11.6 per cent.

#### Lower Pressures

G. C. Jackson, production superintendent for Shell Petroleum Corp., testified that formerly a well would start flowing as soon as the valve was opened, but now the flow starts slowly and wells that formerly would flow their daily allowable in less than an hour required 1½ hours. Jack Frost, of Byrd-Frost, Inc., of Dallas, said the decline in flowing pressure averaged 20 pounds during 1932 and up to April 24 of this year but since then the decline has averaged 30 pounds.

Mr. Griffin testified as to results of bottom hole pressure tests made recently by the commission under his supervision in 32 key wells throughout the field. The average bottom hole pressure June 8 was 1,240 pounds, compared with 1,313 pounds May 8, he said, which indicated an average daily drop of 2.4 pounds, with daily production averaging in excess of 800 000 bbls. He compared that drop in bottom hole pressure average to the decline of .71 pound per 1,000,000 bbls. with daily production curtailed to 400,000 bbls.

Responding to questions by Mr. Cheek, Mr. Griffin said a reduction of the allowable to 10 per cent of the hourly potential flow would effect a good reduction in the decline of the bottom hole pressure, and a greater ultimate recovery. A 12 per cent allowable would better conditions but would not effect as great a betterment as would 10 per cent, and he estimated that should the wells be restricted to 10 per cent of their hourly potential the daily production would be approximately 600,000 bbls.

#### Spacing Discussed

He told Charles I. Francis, of Wichita Falls, that a 400,000-bbl. daily allowable would cause less waste than the present order, but would not name a definite amount which could be considered as the correct allowable to obtain the highest efficiency in withdrawals.

Myron Blalock, of Marshall, attorney for Woodley Petroleum Co., asked Mr. Dillard if wells could be drilled 300 feet apart as safely as 660 feet, the present regulation, to which the witness responded affirmatively. Mr. Dillard admitted to former Governor Dan Moody, representing the Magnolia Petroleum Co., that a greater number of wells would yield a greater amount of oil, but insisted it would cause waste by diminishing reservoir pressure. Rice Tilley, of Fort Worth, counsel for the Rowan-Nichols Oil Co., brought out that the drilling of wells 300 feet apart would permit 50,000 or 55,000 wells in the field, compared with the present 10,200 wells.

Under cross questioning, Mr. Griffin told Mr. Cheek more wells would obtain a large ultimate recovery of oil and would cause less physical waste, even though, if such a course were followed, the field would go on the pump earlier. He advised Rhodes Baker of Dallas, attorney for the Simms Oil Co., that if the present rate of decline in bottom hole pressure continues, the majority of wells in the field will go on the pump within 60 days. He said that 15,000 wells would obtain the greatest practical ultimate recovery economically.

### F. F. SCHAUER HONORED

PITTSBURGH, Pa., June 12.—F. F. Schauer, vice president and general manager of the Equitable Gas Co., Pittsburgh, was elected president of the Pennsylvania Natural Gas Men's Association at the annual business meeting and outing of the association.

G. W. Harr, of the Monongahela West Penn Public Service Co., was elected vice president, and B. H. Smyers, Jr., was re-elected secretary-treasurer. Mr. Harr was also made a director. The following directors were re-elected: T. B. Gregory, S. W. Meals, B. D. Phillips, F. R. Phillips, George W. Ratcliffe, J. French Robinson, F. F. Schauer, J. B. Tonkin, George E. Welker and George Wittmer, Jr.

### LAREDO GAS REDUCTION

AUSTIN, Tex., June 13.—Texas Railroad Commission today ordered reduction of the 67.5-cent rate of gas for Laredo, Tex., charged by Texas Border Gas Co. to 55 cents with $1 monthly minimum. It ordered refunds to meet new rate from time of gas contest filed in December, 1931. The city had ordered a 40-cent minimum, and the company had asked $1.50 rate for first thousand with graduated scale.

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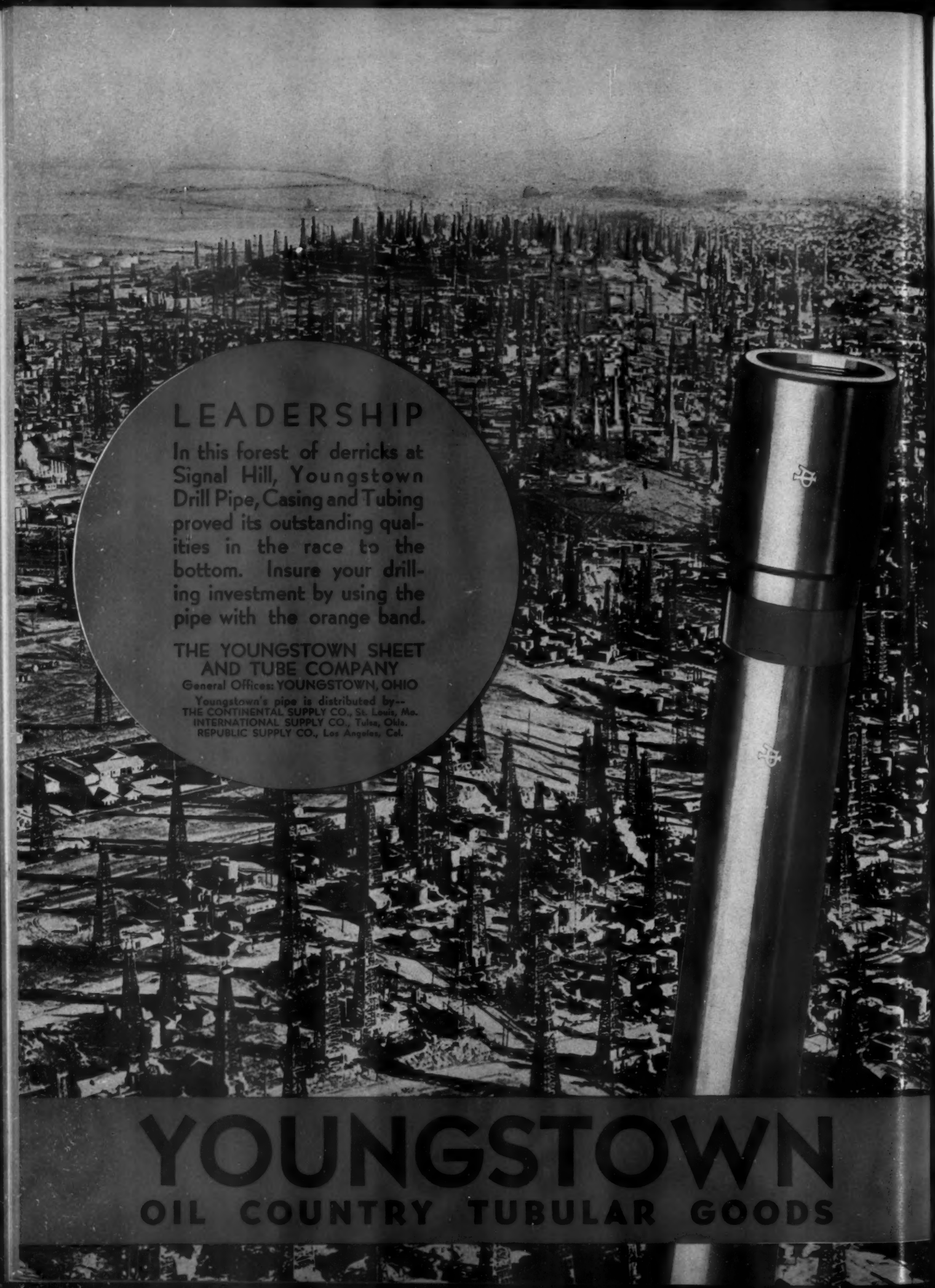
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# NATURAL GASOLINE MANUFACTURE

## Standard of California to Build New Gasoline Plant

The Standard Gasoline Co. has started construction on a 3,000-gallon natural gasoline plant in the new field southeast of Bakersfield. The new plant will be located near the new Hogan Wharton well at Mountain View, from which well gas will be taken for processing. The well is now capable of producing 1,750,000 feet of gas daily and the gasoline content approximates 2 gallons per 1,000 feet. Subsequent enlargement of the plant will be necessary if other wells are drilled in the new field.

Work on the new plant is being rushed and is expected to be completed before the middle of July. This is one of very few natural gasoline plants to be built in the California fields in recent years but it is felt that it may serve as the beginning of a slow expansion of the present gasoline operations along with the development of new fields as the production in the older one declines. Any major pickup in the consumption of natural gasoline on the Pacific Coast accompanied by a sustained improvement in price would occasion the starting of other plants within a short time.

## Overfilled Pressure Tank Blamed for Richfield Fire

A coroner's jury composed of men familiar with the construction and operation of natural gasoline plants placed the blame for the explosion and fire at the Richfield Oil Co. booster plant in the Signal Hills area on June 2 which took the lives of nine known dead on the overfilling of a small pressure vessel. The jury also recommended that the State provide a code of practices for the construction and operation of such vessels to avert similar accidents.

The findings of the jury follow:

"We believe that the explosion and subsequent fire was a result of the initial failure of a horizontal steel storage tank of unstabilized casinghead gasoline, known as tank No. 4, and that this failure was due to overfilling said tank, thereby releasing its contents, which contents were subsequently ignited, causing the major explosion.

"We believe that the overfilling of storage tank No. 4 was the result of an operating error, coincident with a condition of unusual shortage of storage capacity for unstabilized gasoline occasioned by a shutdown for repairs of the stabilising equipment during the previous 24 hours, prior to 10:30 a.m. on last Friday, day of the explosion.

"In view of the testimony submitted to the jury and the widespread effect of this catastrophe involving great loss of life and property, the jury recommends that the State Industrial Accident Commission undertake without delay the supervision of construction and operation of unfired pressure vessels, particularly in oil and other industries handling or treating inflammable materials. The testimony brought out as clearly establishing the fact that no such supervision has been exercised by any official department of State or Government.

### NEW CANADIAN PLANT

CHATHAM, Ontario, June 10.—Officials of Imperial Oil, Ltd., report that the gasoline absorption plant recently completed in the Turner Valley Field is operating satisfactorily. It is understood that definite figures as to the amount of crude naphtha secured by the plant from the residual gas will be given some time in June.

## Natural Gasoline Production Is Down to Lowest Point Since September, 1926

Natural gasoline production in April declined to the lowest point since September, 1926, according to the Bureau of Mines. Despite the further reduction in output, stocks were increased from 31,594,000 gallons on the first of the month to 34,167,000 gallons at the close. Production in the East Texas Field failed to show the customary monthly increase due to that field being shut in most of the month. Oklahoma City and Kettleman Hills accounted for most of the reduction in the total.

Refiners blended more natural gasoline with their production during April by approximately 1,000 bbls. daily, in accounting for the distribution of the production. Purchases by jobbers and exporters were down compared to the previous month, the total of these being 537,000 bbls. in March and 507,000 bbls. in April.

Partly equalizing the net downward trend caused by these factors was the increased pipe line runs of natural gasoline in California which averaged 96,000 bbls. daily in March and 108,000 bbls. daily in April.

The volume of natural gasoline manufactured for April was not sufficient for that commodity to retain its relative importance as a source of motor fuel compared with March. The production of straightrun gasoline and cracked gasoline increased while natural gasoline declined slightly, as was stated previously.

The reduction of production in the Oklahoma fields from 29,800,000 bbls. in March to 27,100,000 bbls. in April accounts for a large part of the total decline for the country. A study of the production from the various Oklahoma fields reveals a continuation of the month-to-month natural decline in available gas. This is particularly true in all areas outside of the Oklahoma City Field where production is being curtailed as the result of a strict enforcement of crude production.

This same natural decline in gas is pronounced in practically all old fields and accounts for the few plants operating on May 1 of this year compared to a year ago. On that date this year there were 853 operating plants in the United

(Continued on Page 36)

PRODUCTION AND DISTRIBUTION OF NATURAL GASOLINE
(Thousands of barrels)

| | April, 1933 | | March, 1933 | | Jan.-Apr., 1933 | Jan.-Apr., 1932 |
|---|---|---|---|---|---|---|
| | Total | Daily av. | Total | Daily av. | | |
| Production | 2,674 | 89 | 2,771 | 89 | 10,864 | 12,790 |
| Distribution— | | | | | | |
| Blended at refineries | 1,733 | 58 | 1,750 | 57 | 7,278 | 7,748 |
| Blended at plants E. of Calif. | 0 | 0 | 10 | 0 | 32 | 12 |
| Run through P. L. in Calif. | 103 | 4 | 96 | 3 | 436 | 454 |
| Jobbers, exports, etc. | 507 | 17 | 537 | 17 | 1,753 | 1,602 |
| Increase in all stocks | 40 | 1 | 150 | 5 | 334 | 1,522 |
| Losses | 273 | 9 | 228 | 7 | 931 | 1,445 |
| Total | 2,674 | 89 | 2,771 | 89 | 10,864 | 12,790 |

PRODUCTION OF MOTOR FUEL
(Thousands of barrels)

| | April, 1933 | | March, 1933* | | Jan.-Apr., 1933 | Jan.-Apr., 1932 |
|---|---|---|---|---|---|---|
| | Total | Daily av. | Total | Daily av. | | |
| Refinery gasoline: | | | | | | |
| Straightrun | 15,320 | 528 | 16,087 | 519 | 60,730 | 66,713 |
| Cracked | 14,358 | 475 | 13,644 | 440 | 53,241 | 55,097 |
| Natural gasoline: | | | | | | |
| Production | 2,674 | 89 | 2,771 | 89 | 10,864 | 12,790 |
| Deduct losses | 273 | 9 | 228 | 7 | 931 | 1,445 |
| Benzol | 89 | 3 | 88 | 3 | 360 | 449 |
| Total motor fuel | 32,569 | 1,086 | 32,362 | 1,044 | 124,214 | 133,604 |

*Revised.

PRODUCTION BY FIELDS
(Thousands of gallons)

| | Natural gasoline | | | | | | | | Blended motor fuel—April, 1933 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Production | | | | Stocks end of month | | Natural gasoline | Naphtha or other oils used | Stocks end of month |
| | Apr., 1933 | Mar., 1933 | Jan.-Apr., 1933 | Jan.-Apr., 1932 | Apr., 1933 | Mar., 1933 | | | |
| Appalachian | 5,300 | 6,200 | 24,000 | 28,600 | 7,719 | 6,659 | 28 | 37 | 97 |
| Ill., Ky., Ind. | 700 | 700 | 3,000 | 2,700 | 803 | 599 | ... | ... | ... |
| Oklahoma | 27,100 | 29,800 | 111,100 | 136,100 | 10,780 | 9,926 | 13 | 8 | 48 |
| Oklahoma City | 5,200 | 7,200 | 25,300 | 28,300 | 1,896 | 1,545 | ... | ... | ... |
| Osage County | 2,400 | 2,500 | 13,300 | 16,500 | 1,087 | 1,319 | ... | ... | 4 |
| Seminole | 7,500 | 8,100 | 30,800 | 41,900 | 3,291 | 2,862 | 1 | ... | ... |
| Rest of State | 10,700 | 11,000 | 41,700 | 49,400 | 4,506 | 4,200 | 12 | 8 | 44 |
| Kansas | 2,100 | 1,900 | 8,300 | 9,500 | 836 | 511 | 24 | 9 | 40 |
| Texas | 38,500 | 29,900 | 112,100 | 121,400 | 8,774 | 9,781 | 75 | 93 | 128 |
| East Texas | 900 | 1,700 | 4,800 | (*) | 132 | 134 | 52 | 92 | 88 |
| North Texas | 1,600 | 1,900 | 7,000 | 8,700 | 615 | 660 | ... | ... | ... |
| Panhandle | 14,200 | 14,400 | 54,200 | 60,100 | 3,130 | 4,391 | 1 | 1 | ... |
| West Central | 6,800 | 7,000 | 26,800 | 31,000 | 3,606 | 3,587 | 22 | ... | 40 |
| Rest of State | 5,000 | 4,900 | 19,300 | 21,600 | 1,241 | 1,009 | ... | ... | ... |
| Louisiana | 3,200 | 3,200 | 13,400 | 17,800 | 1,062 | 793 | 189 | 10 | 68 |
| Arkansas | 1,400 | 1,300 | 5,200 | 6,900 | 164 | 114 | 30 | 1 | 4 |
| Rocky Mountain | 4,400 | 4,900 | 18,500 | 19,800 | 1,132 | 1,098 | ... | ... | ... |
| California | 39,600 | 38,400 | 160,700 | 194,400 | 2,897 | 2,715 | ... | ... | ... |
| Huntington Beach | 1,600 | 1,300 | 5,600 | 5,800 | .... | .... | ... | ... | ... |
| Kettleman Hills | 10,100 | 10,900 | 45,400 | 48,600 | .... | .... | ... | ... | ... |
| Long Beach | 7,300 | 6,400 | 27,700 | 37,800 | .... | .... | ... | ... | ... |
| Santa Fe Springs | 6,900 | 6,600 | 27,100 | 35,200 | .... | .... | ... | ... | ... |
| Ventura Avenue | 3,100 | 3,600 | 13,600 | 15,200 | .... | .... | ... | ... | ... |
| Rest of State | 10,600 | 9,600 | 41,300 | 51,800 | .... | .... | ... | ... | ... |
| Total | 112,300 | 116,400 | 456,300 | 527,200 | 34,167 | 31,594 | 350 | 157 | 385 |
| Daily average | 3,740 | 3,750 | 3,800 | 4,440 | .... | .. | 12 | 5 | ... |
| Total (thousands of barrels) | 2,674 | 2,771 | 10,864 | 12,790 | 814 | 752 | 9 | 4 | 9 |
| Daily average | 89 | 89 | 91 | 108 | .... | .... | ... | ... | ... |

*Included under "rest of state."

## Carbon Black Plant and Absorption Unit Planned

CHATHAM, Ontario, June 10.—Progress is being made with the preliminary arrangements for construction of a combination gasoline absorption and carbon black plant to handle the gas production of independent producers in the Turner Valley Field. The arrangements are being looked after by M. Meriwether, representing a Los Angeles group which will erect the plant and assist in financing construction. An ultimate expenditure of $1,000,000 is forecasted, with about 50 men employed on the initial construction.

The annual production of the plant is estimated at 11,000,000 gallons of natural gasoline and 18,000 tons of carbon black. This supplements the normal casinghead gasoline production recovered by separators, which will be handled direct by the independent companies as at present.

Before actual construction is started, it is planned to contract the entire production of all independent companies, the plant paying these for the gas delivered. A majority of the companies are understood to have contracted already, while with a number of others directors' or shareholders' meetings are necessary to secure formal sanction of the project. Efforts will be made to secure more favorable freight rates on the natural gasoline output, and also more favorable tariff treatment as a further preliminary to the actual construction.

It is expected to market a part of the natural gasoline output in the northern states adjacent to western Canada with a considerable sale in British Columbia, Saskatchewan, Manitoba and Alberta.

The annual carbon black production of 18,000 tons will, it is expected, find an export market in Australia, England, France, Germany and European countries, as well as in eastern Canada.

Following completion of the preliminary details, an intensive survey will be made of the field with a view to mapping out a pipe line system to deliver gas to the plant from all wells under equal pressure.

### ATTEND CODE MEETING

The Natural Gasoline Association of America, along with other associations representing the various branches of the oil business, has been invited to send five members to Chicago to attend a meeting sponsored by the American Petroleum Institute for the purpose of codifying production practices.

Those chosen by the gasoline association are W. K. Warren, of the Warren Petroleum Co.; S. S. Smith, of Shell Petroleum Corp.; F. E. Rice, of Phillips Petroleum Co.; D. C. Williams, of Continental Oil Co.; and R. C. Wheeler, of General Petroleum Corp. of California.

These, along with representatives sent by other associations, will meet at 2 o'clock in the Stevens Hotel with a committee of five who will represent the Institute under the chairmanship of J. Edgar Pew. Other members of the A.P.I. committee include H. F. Sinclair, C. B. Ames, Amos Beatty and K. R. Kingsbury.

### MORE PANHANDLE PERMITS

AMARILLO, Tex., June 10.—The Texas Railroad Commission expects to pass upon more than 20 permits for the extraction of natural gas from wells located in the Panhandle area of Texas in its meeting here June 26. Many permits have been granted on similar requests as the result of the law passed several months ago which removed the need to utilize the residue gas from the plants for light, heat or power.

# DISTRIBUTE

## WORLD'S FAIR INFORMATION BUREAU

MOTOR TO THE ORLD'S FAIR

An automobile trip to the World's air will cost 1¾ cents a mile for gas- oline, lubricating oil and greasing jobs, -third of a cent a mile for each person five in the car.

t housing and parking facilities are avail- nd on the outskirts of, Chicago. en major Federal or state highways, all radiating in all directions from Chicago, been designated as official i's Fair routes. Each of these arked for a distance of 75 miles a Chicago with a gayly colored a, symbolic of one of the major hibits at the Exposition. The map ows routes and markings.

**Official Information** 20 miles from Chicago, is an attrac- tive booth marked "Official Infor- mation Booth." Here the visitor may obtain direc- tions on how to reach any point in Chicago as well as all information regarding living accommodations and rates in the city.

If the motorist plans to stop at a motor village all information will be given him as to locations, prices, etc. When he reaches the village he will find clean and sanitary accommodations at a rate approximating $1 a day per person.

Provision has been made for parking cars under guard, for cooking facilities, baths and supervised playgrounds for children.

**Motor Villages** Chicago is encircled by a ring of mo- tor villages. Those meeting require- ments of the Exposition bear a blue and white badge marked "Motor Village Approved by A Century of Progress, Chicago." These villages will accommodate as high as 5,000 persons per night each. The largest are arranged in form of apart- ment buildings, each apartment with private bath, toilet and lavatory. They have every hotel facility and convenience, being completely furnished and cleaned daily and all linens changed daily. Rapid transportation facilities are available from these villages to gates of the Fair. They have fire and police protection. The Chicago Motor Club, 66 East South Water St., Chicago, has a list of all motor villages with detailed information as to service and facilities of each.

Rooms in hotels range from $1.50 to $5 per day. Rooms in private homes, boarding houses and resi- dential hotels average $1 to $2 per night single, and $1 to $3 double.

There are not any special restrictions on automo- bile drivers in Chicago. All out-of-state licenses are recognized and no licenses for drivers are required of visitors.

**Charges at the Fair** Admission to the Fair Grounds is 50 cents for adults, 25 cents for children. This admission covers 85 per cent of the $25,000,000 represented in the Exposition ex- hibits, and includes 85 exhibitions buildings and 82 miles of exhibits.

Admission to the concessions or amusements—60 in number—ranges from 10 to 50 cents apiece. Meals are obtainable in the Fair Grounds with sandwiches costing 5 and 10 cents each.

Never have such elaborate arrangements been made for caring for children. A 5-acre tract called En- chanted Island, or official children's playground, is a veritable story-book fairyland with nurses and attendants to care for children while the parents are viewing sights of the Fair. Amuse- ments include a magic mountain, min- iature zoo, children's theater, trained animals and clowns, fairy princesses, giants, and everything else to delight the youngster. Ample parking facilities are available at the Fair Grounds. One lot will accommodate 7,000 cars.

# THIS FOLDER

## Display this Sign - at Your Stations . . .

They will build your sales—they will help the Industry's volume—they will help turn a forecasted *decrease* in oil consumption into an *increase*.

The public *wants* the information contained in this folder. People want to go to the World's Fair, but they want to go at lowest possible cost. They want to know the facts about the cost of motor travel and about the new camps and other facilities which have been prepared for motorists. Every motorist in the country is flirting with the idea of going to Chicago.

A sign at your filling station stating that it is an Information Bureau for the "MOTOR to the World's Fair" movement will bring motorists into the station and will lead regular customers, as well, to ask for this information.

The next step is to have the information available, and The Oil and Gas Journal is making this easy for you by offering for national distribution the folder shown here. No need to gather the special information yourself, or to undertake the expense of art work and plates. This has all been done for you.

This folder gives concise, comprehensive information designed to sell the average motorist on the idea of motoring to the World's Fair. Its brevity will invite a reading. It is well printed in two colors, yet low in price. We offer it, with back page left blank, in quantities from 100,000 to 1,000,000, at prices ranging from $2.83 down to $1.55 per thousand. Smaller orders from 5,000 up can be handled at relatively higher prices. Your local printer, at slight additional cost, can print your address and trade-mark, or any longer message you may wish, on the back page. We are printing this folder on our own presses at rock bottom cost.

The Industry is responding in a wonderful way to The Oil and Gas Journal's appeal for a concerted national campaign. You will see the national emblem of this campaign coming more and more into evidence, in the advertising and at the filling stations of oil companies, with every week that passes. Have you made arrangements yet to do your part? This campaign will not only build the entire Industry's volume. It will also build the *individual* volume of those companies which take part aggressively. Take steps today to equip the stations which retail your products with banners, buttons, windshield stickers, folders and other items displaying the "MOTOR to the World's Fair" emblem.

## MOTOR-TO-CHICAGO NATIONAL CAMPAIGN

Care of The Oil and Gas Journal, TULSA, OKLAHOMA

## Natural Gasolines Lowest Since September, 1926

(Continued from Page 36)

States, according to The Oil and Gas Journal's survey at that time and a year ago there were 1,031 operating plants.

The lesser volume of available gas and the abnormally low price being paid for the products would not permit the profitable operation of many of the small plants in these older fields and the shutting down of these plants emphasizes the shift the industry is slowly making toward a centralization of operations in fewer but larger units.

### Trend of Stocks

Stocks held at natural gasoline plants reached a new high for the year but this is not unusual for this period. However, at 34,167,000 gallons the stocks at the close of April were more than 10,000,000 gallons below those of a year ago. This relatively low reserve permits a much more optimistic prediction of the future market for natural gasoline but first, it will be necessary to advance the refinery market if any great improvement is to take place before fall.

Stocks held at plants at the close of each month are given in tabular form, covering a period of 17 months.

STOCKS OF NATURAL GASOLINE AT GASOLINE PLANTS AT CLOSE OF PERIOD

| | Gallons |
|---|---|
| 1932— | |
| January | 34,000,000 |
| February | 36,800,000 |
| March | 39,778,000 |
| April | 44,584,000 |
| May | 44,279,000 |
| June | 34,106,000 |
| July | 31,309,000 |
| August | 25,885,000 |
| September | 24,628,000 |
| October | 24,200,000 |
| November | 20,078,000 |
| December | 18,346,000 |
| 1933— | |
| January | 22,625,000 |
| February | 27,343,000 |
| March | 31,594,000 |
| April | 34,167,000 |

## East Texas Now Between Natural Flow and Pump

(Continued from Page 11)

ing equipment in place are being agitated. A few permits have been granted by the Railroad Commission of Texas for the installation of gas lifts and they are being started by the application of gas under pressure to lighten the fluid column so that they can again flow.

Whatever may be the means to revive them, or lighten the fluid column in the tubing it has been found that they will not flow for a great length of time before the bottom hole pressure is again so low that natural flow ceases. There then follows another period of rest while pressure builds up in the face of the sand to permit of another flow period.

While this statement is general in character and does not apply to all wells in East Texas still it is indicative of the trend of producing conditions there and some observers there have zoned the field into three areas, south, north and central and have allotted to each of those zones approximately 30, 75 and 90 days of additional flowing life.

These zones take in the margin of the field on the east side and extend over to the "fairway" or thick central portions of the field where it is anticipated that flowing life will be much longer than along the thinner east edge portions of the field. The action of some wells in the "fairway" is leading some operators to consider the advisability of installing pumping equipment soon. Such installations will be made to prepare for quick change from natural to mechanical means of production so as to permit continuous operation of the wells.

All of the major companies operating in this field have worked out definite schedules for the installation of equipment at their various wells, but not all of them have selected the particular type of machinery to be installed. There is still an enormous amount of equipment to be purchased and some companies have only placed orders for from 3 to 20 per cent of their total requirements to date. One specific case covers 86 wells of which only four are now equipped for mechanical production. The other 82 must be taken care of this summer if they are to be produced without interruption.

There has been a rush for material that has cleaned out the stock of made up equipment of many manufacturers. Some are reported to be working on 24-hour schedules at their factories trying to catch up with their orders. Others are reported to have on hand sufficient business to keep them operating full time until the spring of 1934 without any additional business. Some manufacturers have adopted the policy of taking care of their old customers first and under this arrangement they are rapidly filling up their shops with new work and will not be in position to take new orders from others for some time.

### Field Allowable May Be Reduced

With the data secured during the recent test of key wells showing that the decline in bottom hole pressure has been at the rate of about 3 pounds per day during the period between May 8 and June 8 or a total drop of about 90 pounds from 1,313 pounds to 1,223 pounds and with the decline in potential off about 12 per cent it now seems probable that the Railroad Commission will be justified in reducing the daily allowable for East Texas in their next order to between 450,000 and 500,000 bbls.

If this is done it may have a tendency to increase the price for this crude and with an increase in price the buying power of the operators will be much greater and it is anticipated that it would lead to the placing of a very large additional amount of business for new equipment immediately.

All operators now realize that it is only a matter of time before they must install some form of mechanical producing equipment. Lack of funds has held back the placing of some orders. Other operators have a program now under way that will keep their men busy for the balance of the summer. If these conditions are changed in any way there will be a tendency to speed up buying and it is anticipated that a seller's market will be created if this buying campaign assumes large proportions.

### STANDARD GETS CONCESSION

Standard Oil Co. of California has obtained a concession on the oil field known as El Hassa, subject to ratification, according to information received from Jeddah, Arabia.

## Decline of Consumption Not Large as Predicted

(Continued from Page 8)

gasoline this year would show a decline ranging from 10 to 15 per cent. The reasoning of these statisticians appeared sound and the fact that their predictions have failed to materialize is a tribute to the strong position of motor fuel as a commodity among millions of consumers rather than a reflection on the accuracy of investigators who in most cases made exhaustive investigations before making known their prognostications.

The situation in regard to the domestic motor fuel demand is especially interesting. The decline in the domestic consumption based on refinery shipments was only 3.5 per cent the first four months which compares with a decline of 5 per cent when 1932 figures for the same period are compared with 1931. It will be recalled that domestic gasoline demand reached a peak in 1931 climaxing a steady yearly increase over a 10-year period. Taking the 1931 figures as the basis of comparison and the records indicate that the domestic demand for gasolines this year will be better than 92 per cent of the all-time peak, a rec-

## California Crude Oil Prices

STANDARD OIL CO. OF CALIFORNIA
(Effective March 5, 1933)

For current purchases of crude oil at the well (unless otherwise specified). (All gravities above those quoted take highest price offered in that field.)

| Gravity— | Long Beach | Seal Beach, Alamitos Heights | Huntington Beach | Inglewood | Playa del Rey | Olinda, Brea Canyon | Athens-Rosecrans | Torrance | Richfield | Whittier | Montebello | LaHabra, Coyote | Santa Fe Springs | Midway-Sunset, Elk Hills, Buena Vista Hills | Lost Hills | Coalinga |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14-14.9 .... | $.55 | $.55 | $.55 | $.55 | $.55 | $.55 | .... | $.55 | $.55 | $.55 | $.55 | $.55 | .... | $.49 | $.49 | $.49 |
| 15-15.9 .... | .55 | .55 | .55 | .55 | .55 | .55 | .... | .55 | .55 | .55 | .55 | .55 | .... | .49 | .49 | .49 |
| 16-16.9 .... | .55 | .55 | .55 | .55 | .55 | .55 | .... | .55 | .55 | .55 | .55 | .55 | .... | .49 | .49 | .49 |
| 17-17.9 .... | .55 | .55 | .55 | .55 | .55 | .55 | .... | .57 | .56 | .57 | .55 | .55 | .... | .49 | .50 | .49 |
| 18-18.9 .... | .57 | .55 | .61 | .61 | .60 | .61 | .... | .59 | .58 | .59 | .55 | .57 | .... | .49 | .52 | .49 |
| 19-19.9 .... | .59 | .57 | .63 | .64 | .62 | .64 | .... | .61 | .61 | .61 | .55 | .59 | .... | .49 | .54 | .49 |
| 20-20.9 .... | .61 | .59 | .64 | .67 | .64 | .66 | .... | .63 | .63 | .63 | .55 | .61 | .... | .52 | .56 | .49 |
| 21-21.9 .... | .63 | .63 | .66 | .69 | .66 | .68 | .... | .64 | .66 | .65 | .55 | .63 | $.57 | .55 | .58 | .51 |
| 22-22.9 .... | .65 | .64 | .68 | .71 | .69 | .70 | .... | .66 | .68 | .67 | .57 | .65 | .59 | .57 | .60 | .53 |
| 23-23.9 .... | .67 | .67 | .70 | .73 | .71 | .72 | .... | .68 | .70 | .69 | .60 | .67 | .62 | .60 | .62 | .55 |
| 24-24.9 .... | .69 | .69 | .72 | .75 | .73 | .73 | $.66 | .70 | .72 | .71 | .62 | .69 | .64 | .63 | .63 | .57 |
| 25-25.9 .... | .71 | .73 | .74 | .... | .75 | .75 | .68 | .72 | .75 | .... | .65 | .71 | .66 | .66 | .65 | .59 |
| 26-26.9 .... | .73 | .74 | .75 | .... | .77 | .77 | .70 | .73 | .77 | .... | .68 | .73 | .69 | .68 | .67 | .... |
| 27-27.9 .... | .75 | .76 | .77 | .... | .... | .79 | .72 | .... | .80 | .... | .... | .74 | .71 | .71 | .69 | .... |
| 28-28.9 .... | .77 | .79 | .79 | .... | .... | .81 | .75 | .... | .83 | .... | .... | .74 | .73 | .74 | .71 | .... |
| 29-29.9 .... | .79 | .81 | .81 | .... | .... | .... | .78 | .... | .84 | .... | .... | .75 | .76 | .76 | .73 | .... |
| 30-30.9 .... | .81 | .84 | .83 | .... | .... | .... | .81 | .... | .... | .... | .... | .80 | .78 | .79 | .76 | .... |
| 31-31.9 .... | .... | .... | .... | .... | .... | .... | .83 | .... | .... | .... | .... | .82 | .80 | .82 | .... | .... |
| 32-32.9 .... | .... | .... | .... | .... | .... | .... | .86 | .... | .... | .... | .... | .84 | .83 | .85 | .... | .... |
| 33-33.9 .... | .... | .... | .... | .... | .... | .... | .86 | .... | .... | .... | .... | .86 | .85 | .87 | .... | .... |
| 34-34.9 .... | .... | .... | .... | .... | .... | .... | .86 | .... | .... | .... | .... | .88 | .87 | .... | .... | .... |
| 35-35.9 .... | .... | .... | .... | .... | .... | .... | .86 | .... | .... | .... | .... | .... | .90 | .... | .... | .... |
| 36-36.9 .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .93 | .... | .... | .... |
| 37-37.9 .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .94 | .... | .... | .... |
| 38-38.9 .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .96 | .... | .... | .... |
| 39 and over | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |

**Signal Hill**—Met on same day by The Texas Company, Union Oil Co. and General Petroleum Co., and Associated Oil Co.

**Huntington Beach**—The Texas Company, Union Oil Co., General Petroleum Co. and Associated Oil Co. schedules stop at 36-36.9 degrees, 75 cents.

**Seal Beach, Alamitos Heights**—The Texas Company met all prices; Union Oil Co., General Petroleum Co. and Associated Oil Co. schedules stop at 36-36.9 degrees, 75 cents.

**Athens, Rosecrans, Domingues**—Union Oil Co. schedule stops at 35-35.9 degrees, posting 32-32.9 degrees, 85 cents; 33-33.9 degrees, 87 cents; 34-34.9 degrees, 89 cents; 35-35.9 degrees, 90 cents. Associated Oil Co. met Standard Oil Co. schedule; General Petroleum Co. met Standard Oil Co. prices, stopping at 33-33.9 degrees at 86 cents.

**Torrance**—Met by The Texas Company. Met by Associated Oil Co. General Petroleum Co. and Union Oil Co., up to 35-35.9 degrees, at 75 cents.

**Inglewood**—Met by Associated Oil Co. and General Petroleum Co.

**Playa Del Rey**—(Prices subject to 5 cents per barrel gathering charge. Met by Union Oil Co. schedule starting at 19 gravity.

**Olinda-Brea Canyon**—Met by Union Oil Co. Met by General Petroleum Co., up to 35-35.9 degrees at 75 cents.

**Santa Fe Springs**—Met by The Texas Company, General Petroleum Co., Union Oil Co. and Associated Oil Co.; schedules start at 34-34.9 degrees, 64 cents, and end at 35-35.9 degrees, 90 cents.

**East Coyote**—Effective March 5, Union Oil Co.: 14 to 16.9 degrees, 55 cents; 17-17.9 degrees, 57 cents, with 2 cents added for each degree upward to 24.24.9 degrees, at 71 cents.

**Richfield**—Met by The Texas Company; met by Union Oil Co. up to 35-35.9 degrees, at 75 cents.

**Montebello**—Met by Union Oil Co. up to 35-35.9 degrees, at 65 cents.

**Kern River, Mount Poso, McKittrick, Sunset, Midway, Elk Hills, Buena Vista Hills**—Effective March 5, Union Oil Co.: 11-13.9 degrees, 44 cents; 14 to 19.9 degrees, 49 cents; 20-20.9 degrees, 52 cents; 21-21.9 degrees, 55 cents; 22-22.9 degrees, 57 cents; 23-23.9 degrees, 60 cents; 24-24.9 degrees, 63 cents; 25-25.9 degrees, 66 cents; 26-26.9 degrees, 68 cents; 27-27.9 degrees, 71 cents; 28-28.9 degrees, 74 cents; 29-29.9 degrees, 76 cents; 30-30.9 degrees, 79 cents. Associated Oil Co. scheduled in Midway, Elk Hills and Buena Vista Hills starts at 11 to 13.9 degrees, 44 cents; same as Union Oil Co. schedule from 14 to 29.9 degrees; 30-30.9 degrees, 79 cents. General Petroleum Co.: Effective March 5 in Midway-Sunset same as Associated Oil Co.; Fruitvale, Kern Front, Kern River, Mount Poso and Round Mountain, 49 cents for all grades.

**Montebello**—Met by Union Oil Co. up to 35-35.9 degrees, at 65 cents; The Texas Company's schedule in Montebello and North Whittier, 14 to 21.9 degrees, 55 cents; 22-22.9 degrees, 57 cents; 23-23.9 degrees, 60 cents; 24-24.9 degrees, 62 cents; 25-25.9 degrees, 65 cents; 26-26.9 degrees, 68 cents.

**Santa Paula**—Union Oil Co., March 5, 14 to 19.9 degrees, 55 cents; 20-26.9 degrees, 56 cents, with 1 cent added for each degree upward to 25-25.9 degrees, at 61 cents, and then 2 cents added for each degree upward to 30-30.9 degrees, at 71 cents. The Texas Company posts similar schedule in Santa Paula and Shiells Canyon.

**Lost Hills-Belridge**—Met by Associated Oil Co. and Union Oil Co., with Union Oil Co. paying 44 cents for 11 to 13.9 degrees gravity.

**Coalinga**—Met by Union Oil Co. and Associated Oil Co. on March 5 and General Petroleum Co. on March 15, but latter company and Associated Oil Co. posted 44 cents for 11 to 13.9 degrees effective March 8.

**Ventura Avenue**—Associated Oil Co., March 5, 22-22.9 degrees, 53 cents, with 2 cents added for each degree up to and including 30-30.9 degrees at 74 cents. Effective March 15, General Petroleum Corp.

**Orcutt**—Union Oil Co., effective March 5: From 16 to 19.9 degrees, 49 cents; 20-20.9 degrees, 52 cents; 21-21.9 degrees, 55 cents; 22-22.9 degrees, 57 cents; 23-23.9 degrees, 60 cents; 24-24.9 degrees, 63 cents; 25-25.9 degrees, 66 cents; 26-26.9 degrees, 68 cents.

**Kettleman Hills**—Effective March 5, Standard Oil Co., Union Oil Co. and Associated Oil Co.: 33 to 33.9 degrees, 66 cents, with 2 cents added for each degree upward to 29-29.9 degrees at 76 cents. Effective March 15, General Petroleum Corp.

**Elwood**—Prices f.o.b. ship—Standard Oil Co. of California, effective March 5: 33-33.9 degrees, 83 cents; 34-34.9, 85 cents; 35-35.9 degrees, 87 cents; 36-36.9 degrees, 89 cents; 37-37.9 degrees, 91 cents. Met by Union Oil Co.

**Newhall, McKittrick and Kern River**—Standard Oil Co. of California, 55 cents for all grades, effective March 5.

**Wheeler Ridge**—Standard Oil Co. of California, effective March 5: 14 to 20.9 degrees, 49 cents; 21-21.9 degrees, 50 cents; 22-22.9 degrees, 52 cents; 23-23.9 degrees, 54 cents; 24-24.9 degrees, 56 cents; 25-25.9 degrees, 58 cents.

**Rincon**—General Petroleum Corp., effective March 15: 32-32.9 degrees, 54 cents; 2 cents added for each degree upward to 36-36.9, at 70 cents.

ord which is not approached by any other major commodity and one which economists point out augurs well for the future of the entire industry.

April exports of motor fuels were greater than in April, 1932, but due to the dearth of business earlier in the year the decline for the first four months was 23 per cent, a figure which is in line with early prediction. Many are confident that the April figures represent a turn in the foreign demand for motor fuels refined in the United States and if such is the case this will aid the market in this country materially over the balance of the year. Exports so far this year have been running about 50 per cent of the 1928 to 1930 peaks when the foreign demand was approximately 5,000,000 bbls. monthly. Due to the large export movement the greatest total demand for motor fuels refined at plants in the United States was in 1930. Taking the figures for the latter year as the basis for comparison and the demand so far this year has been running about 88 per cent of the peak.

Aided by a 5,000,000-bbl. reduction in imports the decrease in the total supply of motor fuels in this country the first four months of this year was much greater than the loss in demand and this is reflected in the stock figures. The latter show that on April 30 inventories of gasoline at refineries and terminals in this country were 8,362,000 bbls., or 12.9 per cent less than on the same date in 1932. The industry started the main gasoline consuming period on June 1 with less gasoline on hand than any similar period in several years. The importance of this situation from the market angle will become generally apparent with any reductions in current crude oil production.

### Kerosene

Although there was an increase in the domestic demand and the total demand for kerosene at refineries the first four months of this year, the statistical situation at the end of April was not as strong as it was a year ago. Late in 1931 and early in 1932 there was a steady improvement in the basic kerosene situation. This was due to an increasing demand and a decreasing consumption, resulting in important price improvement.

For many months prices for kerosene at several refining centers have been practically the same as the ordinary grades of gasoline. These higher relative prices, however, have resulted in increased yields of kerosene from crude oil, the average recovery the first four months being 6 per cent which compares with 5.2 per cent for the same period in 1932.

As a result the production of kerosene increased 11.8 per cent, exceeding the demand and 256,000 bbls. were added to storage the first four months. There were increases in storage the latter half of 1932 so that on April 30 inventories at refineries were 18.4 per cent greater than on the same date in 1932.

### Gas Oil and Fuel Oil

It is now possible to make comparisons on the total demand for gas oil and fuel oil for 1933 and 1932 based on government reports. In general as shown in the table the statistical situation of these products is improving. The demand so far this year has shown a small decline but with a decreasing production stocks were drawn on for a total of 8,733,000 bbls. the first four months of this year.

Improvement in industry in this country which would be accompanied by greater activity in the marine trade will result in a substantial pickup in the consumer demand for all fuels from the bunker grades to the best grades of Diesel oils.

### Petroleum Wax

The recent improvement in wax prices throughout the United States is explained in the figures covering supply and demand for the first four months. In the face of a decline of 23.8 per cent in production the total demand increased 2.5 per cent the latter being accounted for by a gain of 17.6 per cent in exports. Wax stocks on April 30 had been reduced to 124,927,000 pounds, a reduction of 32.3 per cent when compared with the figure for same date in 1932.

### Lubricating Oils

Manufacturers of lubricating oils have had difficulty in maintaining a generally sound situation for their products. The domestic demand decreased 24 per cent the first four months of this year according to the government figures. This decline was only partially offset by an increase of 12.4 per cent in exports. Stocks, however, are lower than they were a year ago and the domestic demand recently has shown improvement.

### WELFARE WORK SUCCESSFUL

CHATHAM, Ontario, June 10.—Official reports show that the welfare work inaugurated by Imperial Oil, Ltd., some years ago was successfully continued in 1932.

The personnel of the benefits committee remained unchanged last year. Many important matters were dealt with, the committee's recommendations being confirmed by the board of directors in practically every case. Thirty-three meetings dealt with 242 cases. Death benefits of $42,113.88 were paid in 33 cases last year, 10 of these being annuitants. The average benefit was $1,276.17.

Some 94 meetings were held during the year by the various joint industrial councils, when 140 matters were discussed and satisfactorily decided. Interest in the work of these councils was shown by the heavy vote polled by employes when the elections for the 1933 councils took place in December; some of the divisions registering a full 100 per cent vote.

# Almost Five Miles of Steel Gas Main Is Dresser-Coupled for World's Fair

Uninterrupted gas service for the various exhibits and concessions at Chicago's Century of Progress Exposition is provided by more than 26,000 feet—almost 5 miles—of Dresser-coupled steel main. Modern joint construction was used to speed up the installation and to insure quick, inexpensive disassembling of the main as soon as the fair is over.

Running off a 30-inch medium-pressure transmission line, gas service enters the fair grounds at Twenty-third Street. In addition to the new work consisting of Dresser-coupled 12-inch and 10-inch main and 6-inch, 4-inch, 3-inch, and 2-inch branches, 3,000 feet of an existing main was Dresser joint clamped and hooked up to the new line. In making the installation, it was necessary to tunnel under the Illinois Central Railroad tracks, drill through solid rock of an old breakwater, and carry a long stretch of 6-inch main under the bridge that connects the mainland with Northerly Island. All the water pipe at the fair, 13 miles, was also Dresser-coupled.

Though most of this construction is now invisible, because it is buried, it marks the sixth international exposition at which Dresser-coupled lines have been in continuous operation. Older gas men may remember how, during the St. Louis Exposition of 1904, Solomon R. Dresser installed coupled lines that remained under pressures as high as 1,000 pounds to the square inch for the entire six months.

*Piping in front of the Administration building*

*Eleventh street bridge running to the World's Fair grounds. The tall building on the right is the home of the Standard Oil Co. of Indiana*

## Plant of French Company Uses Modern Equipment

(Continued from Page 13)

pressure, and other fire equipment will be available also.

### Power Station

Electric power and the steam required for refinery use will be generated in a power station consisting of three high-pressure boilers of 30,000 kg./hr. steaming capacity each, and of three turbine generator sets of 5,350 kw. hours total power output. Furthermore, the refinery will be connected to the regional high tension system, from which a relatively small quantity of electric energy will always be taken. This is done in order to have an outside source of electricity supply in the event of emergency.

There will be three systems of steam supply, a high-pressure one, using steam of 35 kg./cm.² and 380° C., for power generation and for driving certain refinery pumps, a medium-pressure system of 7 kg./cm.² and 230° C. for all steam-driven reciprocating pumps and a low pressure one of 1.5 kg./cm.² pressure, collecting the exhaust steam from the pumps, which steam is utilized for heating and for process purposes. Electricity is generated and distributed at 3,200 volts A.C. 50 periods; smaller transformer posts convert part of the current to 220 volts A.C. 50 periods, for lighting and small-power purposes.

The three steam generators installed at the power station are water tube boilers of a novel design developed by French Public Power & Light Cos. The design of these boilers is quite unique, for the water tubes are equipped with extended surface elements which are attached to the steel tubes by electric welding.

The boilers have a large heating surface and operate with a small volume of water. High rates of heat transfer are obtained and economizers and complicated circuits are avoided, as the combustion gases flow through the boiler at a relatively high speed and in one pass only. This allows a constant high rate of heat transfer and keeps the heating surface clean.

Electricity is produced by three turbine generator sets, two of which have turbines of the extraction type and are equipped with surface condensers, while the third set has a back pressure turbine which exhausts directly into the medium steam pressure system. The turbines use steam of 35kg./cm.² pressure and 380° C. temperature.

Next to the power house is the water pump station which supplies water to all installations of the refinery. Fresh water taken from a small river is used in relatively small quantity for the preparation of feed water and for certain special purposes, while the bulk of water used is taken from the adjacent shipping canal. Two vertical centrifugal pumps of 2,580 m.³/hr. capacity each, and a smaller pump of similar design and 1,560 m.³/hr. capacity serve for supplying brackish canal water to the refinery.

The refinery waste water is returned into the shipping canal at a site remote from the point of intake. Water which has been used in condensers and coolers returns back to the shipping canal by means of a large open conduit, while all water which is likely to be contaminated must pass through filters and a clarifying basin, from where it is taken by pumps and in its turn returned to the canal.

The refinery will have a number of other auxiliary installations, such as a complete control laboratory, workshops, stores and other necessary plants.

A special compressor station deserves special mention. It serves for supplying inert waste flue gases under high pressure to various points of the refinery, where they will be used instead of compressed air for the blowing out of oil lines. It is expected that this will prevent the formation of iron sulphide due to the presence of sulphuretted hydrogen in lines and storage tanks, and will thus improve plant safety.

## Standard of New Jersey Makes Farish Chairman

(Continued from Page 10)

assistant at the Memphis branch, handling the general supervision of selection of service station sites, preparation of estimates, construction, sales promotion, and service station expansion.

In May, 1925, he was transferred abroad and served in Germany, Poland, and Switzerland, assisting in tank wagon

JOHN R. SUMAN

and service station motor oil marketing problems of the affiliated Jersey marketing companies in those countries. On his return to the United States he was appointed general assistant on sales analysis and operating cost investigation at Memphis. From January, 1927, to March, 1928, Mr. Minton was located at Rio de Janeiro, introducing "Standard" motor oil in the territory of the Standard Oil Co. of Brazil, and developing a program of service station expansion along the lines developed by the company in the United States. On his return to this country, he was transferred to New York as assistant to C. G. Sheffield, vice president in charge of sales for the Standard Oil Co. of New Jersey. In March, 1930, he was again sent abroad, going to France for an organizing and operating survey for L'Economique, Jersey's French marketing subsidiary, resuming his former position as assistant to Mr. Sheffield on his return.

### From Clerk to Comptroller

Like W. C. Teagle, president of Standard Oil Co. (New Jersey), T. C. McCobb, the company's new comptroller, came to the parent company from Imperial Oil, Ltd. In October, 1928, Mr. McCobb resigned as secretary and treasurer of Imperial to come to 26 Broadway as assistant comptroller, after 11 years with the Canadian subsidiary. The new comptroller made his entry into the oil industry in 1902 as a freight clerk for the Atlantic Refining Co. For 10 years following he occupied most of the junior clerkships at one time or another where he acquired a general familiarity with the various branches of office administration and accounting. His inclinations ran to the latter specialty and when the International Petroleum Co. acquired the London & Pacific Petroleum Co., Mr. McCobb was sent to Peru in December, 1914, where he installed a complete new system in the producing and marketing departments. This resulted in his appointment as chief accountant for the International, a position he retained until June 1, 1917, when he took charge of refinery accounting for Imperial Oil at Sarnia, Ontario. In July, 1917, he was appointed assistant secretary and treasurer of that company, and in 1926 was advanced to the post of secretary and treasurer of Imperial.

In connection with the retirement of several executives and directors of the Standard Oil Co. (New Jersey) on July 1, John D. Rockefeller, Jr., and a number of executives of the company were hosts to the retiring officials at a dinner at the University Club here this week. Brief addresses were made by Mr. Rockefeller, Jr., Walter C. Teagle and S. B. Hunt.

### Pioneer Texas Oil Man

R. L. Blaffer, newly elected president of the Humble Oil & Refining Co., is a pioneer Texas oil man, his experience in the oil business dating back to the early Spindletop days, when in 1902 at Beaumont he became associated with W. S. Farish, the man he succeeds in his new position. He previously had been engaged in the coal business supplying the Southern Pacific lines and the American Sugar Refining Co.

Born in New Orleans, La., August 5, 1875, Mr. Blaffer received his early education in the public schools of that city and was graduated from Tulane University of that city in 1897.

As a partner of Mr. Farish, Mr. Blaffer engaged in the drilling and production of oil at Spindletop and other old coastal fields until 1917, when the Humble Oil Co. was organized. When the Standard Oil Co. of New Jersey in 1925 acquired the controlling interest in the Humble Oil Co., organizing the Humble Oil & Refining Co., Mr. Blaffer con-

WALLACE E. PRATT

tinued in the new organization as vice president and treasurer.

Mr. Blaffer has been executive or first vice president of the Humble Oil & Refining Co., as well as being treasurer, since 1922, succeeding Mr. Farish who was elected president of the company in that year following the resignation of R. S. Sterling.

Harry C. Wiess, executive vice president of the Humble Oil & Refining Co., is a native Texan, having been born at Beaumont on July 30, 1887.

Mr. Wiess attended the public schools of Beaumont and later entered Princeton University, graduating with the C. E. degree in 1909. Soon after leaving the university he engaged in the oil business in Beaumont, and maintained headquarters in that city until 1919, at which time he was president of Paraffine Oil Co. and other concerns. He was one of the organizers of the Humble Oil Co., which became the Humble Oil & Refining Co. after the Standard Oil Co. (New Jersey) acquired an interest in it, and in 1919 was made vice president in charge of refining operations.

## Humble Oil Directors Elect for Coming Year

HOUSTON, Tex., June 12.—E. E. Townes, director and general counsel; Wallace E. Pratt, director in charge of the geological and land departments, and John R. Suman, director in charge of production and engineering, of the Humble Oil & Refining Co., were elected vice presidents of the company at the annual meeting of the board of directors today. W. W. Fondren, Frank P. Sterling and John S. Bonner, who have been vice presidents, offered their resignations at the meeting, asking that they be relieved of active duties. They will continue their connection with the company.

At the meeting, R. L. Blaffer, who at a special meeting last Wednesday was elected president to succeed W. S. Farish, was re-elected president and also treasurer, the latter office being one he also held while serving as executive vice president. The only other changes in the official personnel were the election of H. Millsapps, formerly assistant to Mr. Townes, and M. B. Fox, assistant to F. O. Freese, secretary, as assistant secretaries.

H. C. Wiess, elected last week as executive vice president, will continue his duties as vice president in charge of refining and sales.

Officers re-elected were James Anderson, vice president; F. O. Freese, secretary; William A. Merrick and James S. Crate, assistant secretaries; L. H. Atwell, Jr., comptroller; Mr. Freese, Mr. Crate, and George R. Cooke, assistant treasurers; Paul Millsapps, cashier, and L. P. Marshall, assistant cashier.

## Wyoming Officials Start Gasoline and Crude Probes

(Continued from Page 28)

chairman, and M. J. Foley, a member, and attested by W. J. Dalton, secretary. Copies were sent to all producers and refiners with a notice that all objections to the resolution or the complying with the requirements of same should be set forth in writing and filed in the office of the board on or before August 1.

### Order of Board

The order of the board is as follows:

1. That each and every corporation, association and individual producing crude oil and/or gas and the by-products thereof within the State of Wyoming during the last five years submit to the Board of Equalization of the State of Wyoming within the ensuing 30 days from the date of this order, separately, for each month in said five-year period:

(a) Complete data relative to the posted prices for oil in each field operated in Wyoming;

(b) All contracts governing the sale of the oil produced in each field operated in Wyoming.

(c) Complete data relative to any and all bonuses paid by the purchasers of oil so produced, over and above the posted prices, including cash bonuses and any and all bonuses of any other kind or character:

(d) Complete data and information relative to exchange made by producers and refiners, of oil produced in Wyoming for oil produced either in Wyoming or elsewhere, with the necessary additional data to evidence the value of both oils so exchanged for the purpose of determining the values and payments of bonuses;

(e) Full data relative to prices paid to each and every royalty holder for oil so produced, including government and state royalty oil;

(f) Full data relative to prices paid for royalty oil as distinguished from other oils, including government, state and other royalties;

(g) Full data showing any and all connection or affiliation between producers and purchasers of crude petroleum;

(h) Complete data showing whether the purchaser of the crude was a refiner, a broker, a pipe line carrier or generally one who would obtain an enhanced value for the crude oil purchased through the handling thereof;

(i) Generally all data evidencing the full value of crude oil returned for assessment and taxation purposes and the methods utilized by the producers and refiners in arriving at values returned by them.

2. That each and every refiner and purchaser of crude oil produced within the State of Wyoming submit to the Board of Equalization of the State of Wyoming within 30 days from the date hereof, for each month of the five-year period preceding the date of this order, a full and complete statement of all oil purchased in each oil field in the State of Wyoming, the name of the producer and/or vendor, the amount paid each vendor and generally all data which will evidence in detail the actual purchase price of all crude oil so produced and marketed within the State of Wyoming during each month of said five-year period.

3. That each and every producer and refiner of crude petroleum produced within the State of Wyoming furnish within the ensuing 30-day period to the Board of Equalization of the State of Wyoming in complete detail for each month during the five-year period immediately preceding the date of this order:

(a) Full data relative to the quantity, quality and cost of all oil in storage;

(b) Full data relative to the quantity, quality and cost at the well and cost at point of storage in each of said months and of all crude oil withdrawn from storage in each of said months;

(c) Full data relative to quantity, quality and cost of oil in storage on June 1, 1933.

4. That each and every refiner of crude petroleum, wholesaler and retailer of the refined products and by-products of crude petroleum (including road oil and fuel oil), furnish to the Board of Equalization of the State of Wyoming within 30 days from this date in complete detail for each month in the five-year period immediately preceding the date of this order:

(a) Full data as to amount and quality of crude oil refined;

(b) Full data as to refined and other products obtained from such crude oil so refined;

(c) Full data as to gross prices at which all refined products and by-products of crude oil so refined were sold by each of said refiners and marketers, including total sale prices.

## D. T. Ross Incorporates for East Texas Service

Dewey T. Ross of Tyler, Tex., who for six years was construction engineer for the Shell Petroleum Corp., but who for the past year has been doing contracting work in East Texas, principally concrete construction for pumping installations, has incorporated under the name of Dewey T. Ross, Inc. W. H. Bowden, a well-known power engineer in the industry, having specialized in central pumping powers, has joined Mr. Ross.

The new company will specialize in designing, constructing and completing installations in East Texas. They are equipped to give the oil companies what they desire in the way of installations and will also act as consultants to the companies requiring such services. They will also give service in drilling, pumping, refining, gasoline plant and pipe line work.

### SUPREME COURT DENIES RELIEF

The Oklahoma Supreme Court Monday declined to give temporary relief to the Sterling Refining Co. and to the Refiners Production Co. when they went over the heads of the Corporation Commission. Both companies seek an additional allowable of 5,000 bbls. daily from the Oklahoma City Field. The court requested the appellants to file an amended petition within three days and then allow 15 days additional for filing of briefs.

### W. C. MORGAN INJURED

W. C. Morgan, manager of the Mid-Continent Field office of the Hughes Tool Co. and in charge of the company's service and assembly plant in Oklahoma City, is in a hospital in that city, recovering from an injury suffered in an automobile accident Thursday, June 8, near Perry, Okla. The car in which he was riding overturned and his right arm, caught under it, was crushed.

## BETWEEN JAN. 24th AND MAY 1st

# Conoco Broke All Records for Number of New Jobbers and Dealers Added!

## *THAT tells the story of Conoco Bronze's success!*

Since the introduction of Conoco Bronze Gasoline, January 24, 1933, jobbers and dealers in ever-increasing numbers have swung to Conoco. And for just one reason: Conoco Bronze is the gasoline motorists demand! Noticeably superior performance, interpreted to the public by attention-compelling advertising campaigns, has made Conoco Bronze Gasoline an outstanding success.

Other jobbers are sharing in that success. It will be worth your while to learn more about Conoco jobber contracts, Conoco advertising support and Conoco plans for the future. Write our nearest division office, listed below, and ask a Conoco representative to call—without obligation.

CONOCO

CONOCO BRONZE HIGH TEST GASOLINE

## CONTINENTAL OIL COMPANY

Albuquerque, New Mexico
Butte, Montana
Chicago (CONOCO OIL CO.)
Denver, Colorado
Fort Worth, Texas
Great Falls, Montana
Kansas City, Missouri
Lincoln, Nebraska
New York, N. Y.
Ponca City, Oklahoma
Richmond, Virginia
Salt Lake City, Utah

# Courts Enforcing Orders in the East Texas Field; Line to Connect Addis and Cowden Areas

By L. E BREDBERG
Fort Worth Bureau, The Oil and Gas Journal

FORT WORTH, Tex., June 12.—There were 28 field locations and 22 field completions in East Texas during the week. There were four wildcat locations staked; one by McElreath & Suggett on the Ferguson farm in the William P. Wyche Survey, Henderson County. This is approximately 1½ miles northeast of a recently abandoned test drilled on this block, in which the Pure Oil Co. purchased a sizeable interest.

Solar Drilling Co. is drilling at 200 feet on No. 1 A. Gregory, in the William Glass Survey, Hunt County.

Shell Petroleum Corp. has derrick up for No. 1 Beggs in the John Carter Survey, Leon County, 1½ miles south of the company's failure recently abandoned on its large Buffalo or Centerville block. Several good oil showings were logged in that test, which will make another exceptionally interesting test for the area. Total depth of the former test was 6,157 feet. Showings were made at 6,146-50 feet and from 6,150-57 feet. Other saturation was also found at 6,060-68 feet. Elevation was 423 feet.

Sun Oil Co. has rig up for No. 1 E. Jarvis, in the W. Smith Survey, Smith County.

C. P. Cole and others' No. 1 Gentry, in the M. Gross Survey, just west of the Van Field, Van Zandt County, bailed dry with a small showing of oil at a total depth of 1,380 feet. It is preparing to drill deeper.

Petroleum Pipe Line Co. has made location for another shallow sand test on the William McGee tract in the William Daniel Survey, northeast of the Van Field. This area holds but slight interest as only two small producers have been completed in the Nacatosh sand, and several dry holes have been abandoned on acreage farmed out by major producing companies.

### Prosecution Begun

More receiverships and injunctions were granted the attorney general's department against violators during the week when Judge Renne Allred, Jr., brother of the attorney general, ruled against alleged violations and by-passes. The long contentious case of the "Fortress of Gladewater" was again brought to the front, and the judge ordered the stopping of overproduction and use of an alleged by-pass on the well which is surrounded by a concrete block house. Another well in the Gladewater townsite was placed in receivership by the judge and an injunction and penalties were assessed against a well in the Joiner area, Rusk County.

District Judges Moore, Wheeler and Robertson, at Austin on June 9, refused to grant a permanent injunction to Thomas D. Humphrey to whom a temporary restraining order had been granted May 30. The plaintiff claimed that leases adjacent to his property had been overproducing and he sought permission to produce an equal amount of oil.

## COMPLETIONS IN EAST TEXAS

### Cherokee County

Hooper and others' No. 1 Dr. Overton, top sand 3,634 feet, dry and abandoned, total depth 3,656 feet. Mid-Texas Oil Co.'s No. 1 A. P. Pace, dry and abandoned, total depth 3,665 feet.

### North Gregg County

Atlantic and Sun Oil companies' No. 35 Hayes, top sand 3,486 feet, initial production 60 bbls. per hour through open tubing, total depth 3,530 feet. Gulf Production Co.'s No. 27 M. O. Sheppard, top sand 3,475 feet, initial production 100 bbls. per hour through open tubing, total depth 3,505 feet. Reed and others' No. 2 State Land, top sand 3,462 feet, initial production 90 bbls. per hour through open tubing, total depth 3,500 feet. Simms Oil Co.'s No. 2 Bob Wood, top sand 3,511 feet, initial production 40 bbls. per hour through open tubing, total depth 3,531 feet. Superior Oil Co.'s No. 17 Ingram, top sand 3,545 feet, initial production 220 bbls. per hour through open tubing, total depth 3,596 feet.

### South Gregg County

Cranfill & Reynolds' No. 4 S. Scott, top sand 3,648 feet, initial production 120 bbls. per hour through open tubing, total depth 3,658 feet. Gulf Production Co.'s No. 6 G. Davis, top sand 3,560 feet, initial production 85 bbls. per hour through open tubing, total depth 3,578 feet. Spitnagel & Menzies' No. 1 Nelly Dickson, location abandoned. Texas Co.'s No. 17 Cole, top sand 3,507 feet, initial production 87 bbls. per hour through open tubing, total depth 3,549 feet.

### South Rusk County

Dyck Oil Co.'s No. 3 John Bell, top sand 3,806 feet, initial production 75 bbls. per hour through three-quarters inch tubing choke, total depth 3,819 feet. Earl & Martin's No. 2 Pinkston, top sand 3,647 feet, initial production 80 bbls. per hour through open tubing, total depth 3,675 feet. Gulf Production Co.'s No. 6-D Mayfield, top sand 3,617 feet, initial production 55 bbls. per hour through open tubing, total depth 3,628 feet; No. 24 G. G. Turner, top sand 3,755 feet, initial production 72 bbls. per hour through open tubing, total depth 3,767 feet. Humble Oil & Refining Co.'s No. 6 First State Bank, top sand 3,691 feet, initial production 90 bbls. per hour through three-quarters inch tubing choke, total depth 3,696 feet. Mid-Kansas Oil & Gas Co.'s No. 4 C. L. Graham, top sand 3,675 feet, initial production 32 bbls. per hour through open tubing, total depth 3,676 feet. Trico Oil Co.'s No. 2 D. Bradford, top sand 3,520 feet, initial production 15 bbls. per hour through open tubing, total depth 3,554 feet. Turman Oil Co.'s No. 7 Dark, top sand 3,700 feet, initial production 60 bbls. per hour through open tubing, total depth 3,780 feet.

### North Rusk County

Overton Refining Co. and Hatcher's No. 1 Morris, top sand 3,635 feet, initial production 75 bbls. per hour through open tubing, total depth 3,640 feet. J. I. Roberts' No. 2 Brightwell, top sand 3,652 feet, initial production 75 bbls. per hour through 1-inch tubing choke, total depth 3,675 feet. Roberts Brothers' No. 2 W. J. Brightwell, top sand 3,640 feet, initial production 75 bbls. per hour through open tubing, total depth 3,685 feet. Weaver-Crim's No. 2-B Bean, top sand 3,623 feet, initial production 15 bbls. in one-fourth hour through open tubing, total depth 3,706 feet.

### Smith County

Kimble & Smith's No. 1 N. Greene, top sand 3,821 feet, initial production 70 bbls. per hour through open tubing, total depth 3,823 feet.

### Upshur County

Mudge Oil Co.'s No. 9-A Free, top sand 3,640 feet, initial production 100 bbls. per hour through open tubing, total depth 3,675 feet.

## WEST TEXAS

The Harrison-Addis and Stanolind Oil & Gas Co.-Cowden area in West Texas will soon be connected by a 6-inch line which the Humble Pipe Line Co. is preparing to lay from the Penn Pool to the southwest. The line will be approximately 24 miles in length, connecting first to the Addis area, thence north to the Cowden area. There are two small producers in the former and three in the latter area, with one more in process of completion.

The Cowden area was opened in September, 1930, and the Addis area was discovered in the latter part of 1932. Three other tests are now drilling, in and between the two producing areas, which may eventually be linked by production. The owners of the Addis well ran a small line to connect the well to a loading rack on the T.&P. railroad soon after the well was completed. Shipments are made to a refinery at Big Spring. Oil from the Cowden wells has been going to storage erected by the Stanolind Oil & Gas Co., and the wells have been producing only a small amount through choke.

### Ector County

Landreth Production Co. and Texas Co.'s No. 1 Holt in Section 16, Block 43, Township 1n, T.&P. Survey, in the Cowden area, Ector County, was plugged back to 4,380 feet to shut off sulphur water and shot with 150 quarts from 4,338-80 feet, followed by packing with 60 feet of gravel. It did not clean itself but gas broke through the gravel and the well made one flow. It is now being cleaned out, estimated as having about the same potential as the first well drilled by these companies in this area, a well to the west.

Fred Turner and others' No. 1 Addis, in Section 35, Block 43, Township 2s, T.&P. Survey, approximately three-quarters of a mile south and east of the Harrison, Turner and others discovery well of the Addis area, topped the Brown lime section at 3,680 feet and cemented a string of pipe. It is running around 50 feet lower than the Addis discovery well.

### Big Lake Locations

Three more locations are staked this week for deep tests in the Big Lake Field, Reagan County. Group No. 1 Oil Corp. staked location for No. 9-B University in Section 36, Block 9, and No. 10-B was located two locations south, same section. Big Lake Oil Co. is digging cellar for its No. 12-C University, in Section 12, Block 2. It has No. 11-C drilling below 4,400 feet in the same section.

### Yates Pool

A hearing on the Yates Pool, Pecos County, was scheduled for June 14 at Austin, but notice has been received from the Railroad Commission that it has been postponed indefinitely due to Mid-Kansas Oil & Gas Co. withdrawing its petition for an increase in the daily allowable.

Humble Oil & Refining Co.'s No. 1 White and Baker, Section 44, Block Z, T.C.R.R. Survey, west of the Yates Pool, encountered oil, gas and water at 1,715 feet and cemented casing after killing the gas. This test will be drilled to the Ordovician lime, from which production is obtained in the Big Lake Field, Reagan County, to the northeast.

Magnolia Petroleum Co. is dismantling two 80,000-bbl. tanks at its Midland tank farm, in Midland County, to move to the newly opened Tomball area in Harris County.

South Tex Refining Co. at Trent is building one 10,000-bbl. tank adjacent to its refinery in Taylor County. The refinery is operating at capacity and the owners are intending making some improvements, possibly increasing the capacity.

There were six locations reported during the week. The other three were staked in Glasscock, Ward and Winkler

## East Central Texas Wildcats

Week Ending June 12

**ANGELINA COUNTY**

| Company, well, farm name, section and block | Remarks |
|---|---|
| LaRue-Smith et al's No. 1 J. Perkins, center of W 22 acres of J. Perkins 55-ac. tract, Antonio Flores Sur. | Drlg. 950 ft. |

**CHEROKEE COUNTY**

| | |
|---|---|
| Wilson & Stubbs' No. 1 L. Robert, 450 ft. from S and 150 ft. from W line of lease, J. B. Wolfin Sur. | Prepare to deepen; T.D. 3,600 ft |

**FRANKLIN COUNTY**

| | |
|---|---|
| Fred Prince et al's No. 1 E. L. Phillips, 1,110 ft. from W line and 330 ft. from N line of survey, W. Birdwell Sur. | Drlg. 1,465 ft. |

**FREESTONE COUNTY**

| | |
|---|---|
| Clyde Creighton's No. 1 Holley Bros., 954 ft. from W line and center of N and S lines of lease, A.B.M. Sur. | Drlg. 4,650 ft. |

**GREGG COUNTY**

| | |
|---|---|
| P. R. Bond's No. 1 T. Anderson, 443 ft. S and 20 ft. W of Sinclair Prairie's No. 2 Williams, J. Ruddle Sur. | Set csg.; T.D. 3,490 ft. |
| Dyck Oil Co.'s No. 8 J. M. Christian, 3,750 ft. from N line and 5,200 ft. from E line of survey, G. W. Hooper Sur. | Set csg. 3,564 ft. |
| East Texas Refining Co.'s No. 4 D. Caldwell, 2,080 ft. from N line and 3,629 ft. from E line of survey, J. Ruddle Sur. | Drlg. 850 ft. |
| East Texas Refining Co.'s No. 6 F. White, 330 ft. from N line of lease, 660 ft. E of No. 5, H. Edwards Sur. | Derrick. |
| Gulf Production Co.'s No. 7 F. M. Fonville, 1,800 ft. from N line and 3,450 ft. from W line of survey, William Tyndale Sur. | Drlg. 2,575 ft. |
| Gulf Production Co.'s No. 11 Muckelroy, 3,600 ft. from S line and 120 ft. from S line of survey, J. H. Carrithers Sur. | Derrick. |
| A. D. King, trustee's No. 3 D. T. Lloyd, 355 ft. S and 14 ft. W of NW cor. of Stanolind's Meadow lease, D. Sanches Sur. | Waiting on cmt. to set; T.D. 3,703 ft. |

(Continued on Page 42)

Counties. Three completions were reported, one in Howard and two in Ward County.

### RANGER AND WICHITA FALLS

Humble Pipe Line Co. is taking up 20 miles of 10-inch line in Comanche and Erath Counties to move to the Tomball area in Harris County, on the Gulf Coast.

Welch and others spudded their No. 1 Chaffee north of the town of Mansfield in Tarrant County on June 11. This is to be a 4,000-foot test and due to location will be especially interesting to this section. It is in the William Davidson Survey, Patent 1-885.

Charles Knox and others' No. 2 A. R. Manning in Section 3,412, Block 7, T. E.&L. Survey, northeast of Graham in south Young County, came in this week estimated good for 600 bbls. from pay topped at 2,709 feet. It is an east offset to Dewey Knox' No. 2 A. R. Manning, discovery well of the pool, completed several months ago for a high initial.

Another good well, the third for the Jean Pool, in Block 1,365, T.E.&L. Survey, Young County, was brought in this week for an initial estimated at 400 bbls. Production in this pool is found around 700 feet, the regular Swastika pay, which was found in the Swastika Pool, 15 miles to the northwest, in 1921. The well is owned by Duncan, White and Beavers and is located on the Montgomery farm in Block 341. Acreage in the vicinity has been changing hands at the rate of $200 per acre and a test since this last well showed as a good producer.

Waggoner Refining Co. has made location for another 5,000-foot test in the Rock Crossing Pool, Wilbarger County. Location is in Section 30, Block 4, H.& T.C. Survey. Another deep test is now drilling in the same area.

Olney Refining Co., at Olney, is paying from 12½ to 17½ cents premium for oil and Panhandle Refining Co. of Wichita Falls is paying a 5-cent premium. Many wells in the district are shut down and some of the refineries have had to resort to paying premiums for high gravity oil.

A complaint of discrimination in taking gas from producing wells in the Strawn gas field, in southwestern Palo Pinto County, was filed with the Railroad Commission at Austin on June 12 by W. E. Hawkins of Abilene and L. D. Hawkins of Breckenridge, who represent 15 producers in the field, in which there are 40 gas producing wells. Lone Star Gas Co. and Texas Pacific Coal & Oil Co. are alleged to be taking gas from certain wells and thereby draining gas from the area. The former company is said to be taking gas from the Palo Pinto Corp. and Hoffman and Page wells, and the latter company is said to be taking gas from only its own wells. The field has a daily estimated capacity of 200,000,000 feet.

### PANHANDLE DISTRICT

There were no completions reported for the Panhandle district and only one location was staked. This was reported for Gray County.

Several companies in the district have asked for permits for the use of natural gas for extraction of gasoline and the Railroad Commission has announced that a public hearing will be held at the Herring Hotel, at 10 a. m. on Monday, June 19. Mid-Kansas Oil & Gas Co., Dixon Creek Oil Co., Empire Gas & Fuel Co., Gates Oil Co., Gulf Production Co., Huber Petroleum Co., Hutchinson Drilling Co., A. D. Morton, Piney Oil & Gas Co., Sinclair Prairie Oil Co., Nabob Royalty Co. and James L. Nelson were named as parties applying for permits to extract gasoline from gas from their wells in the district.

The 10-day potential production test of wells in the district, which was scheduled to begin July 1, is reported to have been cancelled by the Railroad Commission. Such tests would have created considerable expense to the companies and would have resulted in a large amount of oil being run to storage. The low price of crude was also cited as a deterrent. The allowable for the field is 44,000 bbls. and the potential is placed at 151,820 bbls., said to be far above what the field can produce.

The present order expires on August 1 and the new test was planned by the commission to arrive at some figure for new orders. There are 1,861 wells in the field, 896 of which are classed as marginal wells.

Production in the district was off 2,365 bbls. per day this week, or a decrease from 45,275 bbls. last week to 42,910 bbls. per day this week.

### COMPLETIONS IN WEST TEXAS

#### Howard County

Sinclair Prairie Oil Co.'s No. 6 Dodge, top pay 2,665 feet, initial production 100 bbls. per day pumping, total depth 2,815 feet.

#### Ward County

Graham Corp.'s No. 1 John Bennett, top pay 2,309 feet, initial production 80 bbls. per day flowing, total depth 2,535 feet. Sinclair Prairie Oil Co.'s No. 2 H. Archenhold, top pay 2,420 feet, total depth 2,680 feet, plugged back to 2,665 feet, initial production 30 bbls. per day through 2-inch tubing.

### COMPLETIONS IN NORTH TEXAS

#### Archer County

Bailey and others' No. 1 Archer County school land, dry and abandoned, total depth 1,502 feet. M. M. Bradley's No. 3 Garvey, dry and abandoned, total depth 1,086 feet. W. B. Hamilton's No. 2 Pace, sandy lime 1,151-63 feet, initial production 200 bbls. flowing, total depth 1,163 feet. Stafford & Hamer's No. 1 Archer County, dry and abandoned, total depth 1,018 feet.

#### Jack County

Cable & Fresno's No. 1 Moore, dry and abandoned, total depth 604 feet.

#### Wichita County

W. W. Parta and others' No. 1 Mrs. Parker, dry and abandoned, total depth 1,810 feet.

#### Young County

C. Christie's No. 1 McClure, dry and abandoned, total depth 1,010 feet. Helena Oil & Gas Co.'s No. 1 League, dry and abandoned, total depth 655 feet. Pacific Atlantic and others' No. 1 Jackson, dry and abandoned, total depth 1,370 feet. Pearl Oil Co.'s No. 1 Andrews, dry and abandoned, total depth 1,012 feet. White & Duncan's No. 1 Smith, oil sand 710-12 feet, initial production 60 bbls., total depth 712 feet. D. M. Knox and others' No. 2 Manning, oil sand 2,709-25 feet, initial production 285 bbls. flowing, total depth 2,725 feet.

## Prorating Requirements of Loose Sands Different

(Continued from Page 16)

as much as 50 per cent from the first to the second hour, whereas others did not decline at all.

But were the present potentials closely proportional to the reserves, they would still lead to inequitable withdrawals in East Texas and other fields subject to important water or gas drive, for any system based upon reserves alone is inadequate in that it assumes that the properties will have equal time to withdraw the oil. In East Texas, the water is advancing eastward and though it may not follow textbook examples, it will progressively take the field so that the west edge properties will have shorter lives than the east edge properties. If a west edge property had the same reserve, and was given the same daily allowance as an east edge property, but because of water encroachment its life were only half so long, it is obvious the west edge property would get less than the recoverable oil originally found under it.

#### Preposterous Potential Figures

The difficulties and abuses in taking potentials have been shown in Oklahoma City and other fields where used. The operator can do much to build up artificial and misleading potentials that are based upon a few hours' test. In many fields it will be too dangerous to take them at all. Also they build up such preposterous figures as the recent rating of East Texas at 126,000,000 bbls. daily. No informed person believes that if all wells in the field were opened up at the same time they would produce at this rate, for even one hour, much less would a day's output even approach such a fantastic figure. And because the wells will decline at different rates, their potentials will not maintain the same proportions so that new potentials should be taken at rather frequent intervals to make adjustments for these changes.

There has also been proposed a plan for prorating in proportion to reserves, which are to be estimated from the sand thickness, porosity, recovery factor, and acreage. This is based upon recognized engineering methods, but it involves serious difficulties in application and it would not be equitable even if these difficulties could be satisfactorily solved. As pointed out before, in a field subject to water encroachment, it is necessary to let the properties near the water edge produce at faster rate in order that they may have a chance to get all their oil before the water reaches them. The same thing is true for properties near an expanding gas cap.

#### Many Chances for Disagreement

It would be necessary therefore to adjust the allowables to compensate for the expected differences in the lives of the properties, and upon what basis could this be calculated? There would be many chances for disagreement, and it would seem impossible to establish either the reserves or the adjustments in allowables upon anything like incontrovertable bases. How can proof be established in the 10,000 wells already drilled in East Texas of the thickness of sand under each property, the average porosity of the sand or the percentage of the oil content that can be recovered? Even though the acreage, sand thickness, and character of sand were known, the recovery factor is largely a matter of opinion, for the engineer has so far not worked out an exact quantitative method. We have only to bear in mind the great differences in the estimates that engineers have made of the reserves of the East Texas Field to show how much opinions may vary on such matters. Yet conditions are much more uniform in East Texas than in most pools. It would obviously be desirable to avoid any proration plan depending so much upon opinions not susceptible of factual proof, and that provide no satisfactory machinery for correcting errors that are inevitable under any plan.

#### To Fit Open Sand Condition

To fit the conditions found in East Texas and other fields of extremely open sand subject to water or gas drive, it would be necessary to modify the plan proposed for fields of the Oklahoma City type. It would appear to be unnecessary to test each well, and it would be useless to work out a production-pressure ratio for each small property. It would be better to work out the ratio for a group of properties covering a fairly large area. What size these units should be can best be determined after experience, but it is believed that in East Texas they should first try a square mile as the size of the unit. Key wells for testing should be selected at approximately the same distance apart and about one in 20 wells. From the average bottom hole pressure of the key wells on each unit, and the total production of the properties comprising the unit during a test period, the production-pressure ratio would be worked out and reduced to an average ratio per acre. From the per acre ratios of the units, a contour map can be made for the field and from this master map, the average per acre ratio can be taken for each property. This ratio should then be multiplied by the number of proved acres on each property to give its proration factor, and the allowable for the field be allotted among the properties in proportion to their proration factors.

As an example, assume a property of 30 acres lying between contours denoting respectively recoveries of 5 and 10 bbls. for each drop of a pound in bottom hole pressure. Its position on the master map would give it a ratio of 7½ bbls. per pound and, multiplied by the 30 acres, 225 bbls. for the property. If the field was to be allowed a production that was expected to cause an average drop over the field of 30 pounds during the next period of, say, 60 days, the property would be allowed to produced 225 times 30 or 6,750 bbls. during the period, or 112½ bbls. daily.

#### Bases of Proration

It will be noted that the chief difference between this plan and the one proposed for fields of the Oklahoma City type is that acreage is directly included as a factor and that averages are taken for groups of properties instead of determining the ratios of each property separately. Otherwise the procedure could be much the same. Tests could be made continuously starting from one end of the field at the beginning of each period and finishing at the other end of the pool at the end of the period, and making a primary master map to show the bottom hole pressures and to keep the different parts of the field in line to maintain even pressure gradients. As each test was finished for a unit, its production-pressure ratio for the past period would be determined and the allowances for the next period based upon it so that there would be corrections at short intervals. The facts upon which proration would be based would be:

1. Allowable for the field determined by the state.
2. Bottom hole pressures determined periodically by test.
3. Legal production for the period determined from authentic records.
4. Proved acreage of each property.

Once the allowable has been set for the field, the other three facts leave little room for controversy, and the plan tends to correct errors and inequities each period.

Unfortunately the rapid adjustment of pressures in East Texas does not make the plan as sensitive in detecting and correcting over and under production as in fields where flow through the sand is less easy, but it is believed the system would decidedly limit the chances for overproduction. It would however be much more necessary to have effective policing of the field to prevent overproducing, but this would be even more necessary for any of the other plans that have been employed or proposed. The periodic pressure tests would give indications of overproduction and direct suspicion to those practicing it.

In the other articles it has been shown how the advancing water will tend to hold up pressures of the properties near the water edges and permit them to produce at a faster rate to compensate for their shorter life and it is believed the proposed plan is more likely to be equitable for water edge properties than any of the others proposed. Uniform control of the pressures will also make for a more orderly advance of the water, which will be conducive to higher ultimate recovery. Where there is no large gas supply, conservation lies primarily in controlling the water movements, and it is believed this system, coupled with an allowable for the field that would not permit the water to advance too fast, would be more conducive to conservation than the other systems proposed.

#### Difference Is in the Application

It will be noted that though this plan includes acreage as a factor in the formula, whereas the proposal for tighter sand fields did not, the two methods do not differ in principle, but only in the practical details of application, necessitated by the differences in permeability of the reservoir rock. Both are directed towards allowing each property owner to withdraw his oil at such rate that he may recover as much oil and gas as the original recoverable oil and gas under his property. In one case it is for practical reasons necessary to include acreage directly. In the other case the same end is in fact an essential in the formula, though not specifically mentioned. However, there would be no reason why acreage could not be specifically mentioned. However, there would be no reason why acreage could not be specifically included in the plan proposed for the tighter sand

fields. Its inclusion, if correctly applied, would not change the answer and would merely introduce an unnecessary calculation. We can see no other objection should it be desired to include acreage in all cases for purposes of uniformity.

But how often pressures should be tested, whether all wells should be tested, whether allowances should be worked out for each well, each property or for groups of properties, how long the wells should be shut in before and after tests, are all questions that should not be made uniform, but should be worked out for each field according to local conditions, so as to apply the principles in the most workable manner. There are certain principles for the occurrence of oil and gas that apply to all fields, but there is great variation as to details of occurrence. Similarly there are certain principles of proration that apply everywhere but the details of application should be varied in accordance with the differences between the fields.

Following is a partial bibliography on various methods proposed for proration, from compilation by Miss Florence Lundell of the Tulsa Public Library:


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Umpleby, James B.—"Reservoir Energy, Its Source, Ownership and Utilization in the Production of Petroleum," The Oil and Gas Journal, Oct. 6, 1932, p. 52.

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## J. S. Cullinan Has Plan to Control Oil Industry

HOUSTON, Tex., June 10.—J. S. Cullinan, independent oil man of Houston, favors the general industry bill and is opposed to the Marland bill, he said upon his return from Washington, where he conferred with Secretary Ickes of the Department of the Interior.

"I found the Marland bill so filled with insupportable penalties," Mr. Cullinan said, "that its effect would be most unfortunate for the oil trade. The general industry bill will provide the necessary authority for successful control of crude oil production.

"Authority is given by the constitution to Congress to condemn all or part of the petroleum, natural gas and other natural resources for the purpose of national security. Sooner or later the national government will exercise its authority for the purpose of national protection. Accepting Federal supervision and regulation is but a sound economic step in that direction.

"I see no problems applicable to the oil industry, organization and administration, which can not be worked out, even under the limitations of the Wagner industry bill."

Mr. Cullinan is a former president of the Texas Co. and founder and receiver of the American Republics Corp. His own control plan would call for two units:

1. An association composed of members of the industry, one member of the board to be selected from each Federal land bank district.

2. An administration appointed by the president, to consist of a chairman and one or more vice chairmen, with headquarters in Washington. Adequate compensation would be provided to secure competent men.

In his proposal to Secretary Ickes Mr. Cullinan suggested former President Hoover as administration chairman, R. C. Holmes, former Texas Co. president, and Wirt Franklin, Ardmore, Okla., as vice chairmen. Cost of the administration would be borne by the industry through an assessment for association memberships. One share of stock in the association would be issued to each member thereof.

"Under this plan," Mr. Cullinan pointed out, "the American Petroleum Institute, as such, would be entitled to but one membership and vote, thus removing one of the greatest obstacles, past and present, to practical conservation, which in my opinion cannot be accomplished while one such group assumes to dominate the industry."

The plan also embraces producing allotments to each of the 48 states, the fixing of minimum and maximum prices and a graduated Federal severance tax which would supplant present state severance taxes and act as a curb on oil production.

### ROCKY MOUNTAIN AREA

Estimated daily production for the week ending June 10 follows:

| | |
|---|---|
| **WYOMING** | |
| Salt Creek | 19,060 |
| Big Muddy | 1,810 |
| Badger Basin | 40 |
| Byron-Garland | 230 |
| Byron-East | 0 |
| Dallas Derby | 520 |
| Dutton Creek | 80 |
| Elk Basin | 560 |
| Ferris | 630 |
| Frannie | 230 |
| Grass Creek | 750 |
| Greybull | 0 |
| Hamilton Dome | 860 |
| Hudson | 350 |
| LaBarge | 640 |
| Lance Creek | 200 |
| Lost Soldier | 1,740 |
| Mule Creek | shut in |
| Midway | 80 |
| Notches | shut in |
| Oregon Basin | 130 |
| Osage | 720 |
| Pilot Butte | 30 |
| Rex Lake | shut in |
| Rock River | 1,180 |
| South Casper | shut in |
| Poison Spider | 120 |
| Teapot | 20 |
| Total | 30,010 |
| **MONTANA** | |
| Warm Springs | shut in |
| Buckley-Border | 360 |
| Cat Creek | 720 |
| Cut Bank | 410 |
| Dry Creek | 170 |
| Kevin-Sunburst | 2,940 |
| Lake Basin | 50 |
| Pondera | 940 |
| Total | 5,590 |
| **COLORADO** | |
| Florence | 310 |
| Fort Collins and Wellington | 600 |
| Iles Dome | 580 |
| Moffatt | 590 |
| Orchard | 160 |
| Rangely | 80 |
| Tow Creek | 240 |
| Total | 2,560 |
| **NEW MEXICO** | |
| Artesia | 540 |
| Cooper area | 70 |
| Empire area | 0 |
| Eunice area | 610 |
| Getty Pool | 0 |
| Hobbs | 26,810 |
| Hogback | 210 |
| Hospah | shut in |
| Jal | 1,250 |
| Lea area | 2,330 |
| Jackson | 710 |
| Maljamar | 220 |
| Rattlesnake | 630 |
| Table Mesa | 80 |
| Total | 35,460 |
| Total all fields | 73,620 |
| Previous week | 72,340 |
| Difference | 1,280 |

### East Central Texas Wildcats

(Continued from Page 40)

Manzeill and Reynolds' No. 1 Mrs. Compton, 30 ft. from S line and 150 ft. from W line of Blk. No. 30, H. R. Hokit Sur. ..... Rig up.
J. Niblack's No. 1 S. Carr, 500 ft. from S line and 550 ft. from W line of survey, M. McCurry Sur. ..... Rig up.
Rainey et al's No. 1 State, 5,220 ft. from N line and 1,100 ft. from W line of P. McAnally Sur. ..... Drlg. 2,922 ft.
Rosier and Pendleton's No. 6-A Nicholson, 353 ft. from S line and 330 ft. from E line of lease, M. Mann Sur. ..... Rig up.
Shell Petroleum Corp.'s No. 7 Bates, 5,650 ft. from N line and 3,270 ft. from W line of survey ..... Rig up.
Stanolind Oil & Gas Co.'s No. 5 Meadows, 91 ft. from N line and 68 ft. from W line of lease, D. Sanches Sur. ..... Testing; T.D. 3,720 ft.
Sun Oil Co.'s No. 4 E. Smith, 1,800 ft. from N line and 370 ft. from W line of survey, M. Scott Sur. .... Rig up.
Superior Oil Co.'s No. 16 Ingram, 1,800 ft. from N line and 1,430 ft. from W line of survey, W. E. Pasteur Sur. ..... Waiting on cmt. to set 3,510 ft.
Tide Water Oil Co.'s No. 10 Hughey, 914 ft. from N line and 330 ft. from E line of survey, J. Hillard Sur. ..... Waiting on cmt. to set; T.D. 3,433 ft.
Yeager et al's No. 1 Howard, 660 ft. E of Harry Lewis' No. 1 King, Mary Scott Sur. ..... Set surface csg. 105 ft.
Yount Lee Oil Co.'s No. 7 V. Calvin, 330 ft. from E line of lease and 525 ft. from Nos. 1 and 3, H. Hathaway Sur. ..... Drlg. 3,185 ft.
Yount Lee Oil Co.'s No. 4 M. M. Custer, 330 ft. from N line of lease and 660 ft. E of No. 1, J. Skillern Sur. ..... Drlg. 1,608 ft.

**HENDERSON COUNTY**

McElreath and Suggett et al's No. 1 Ferguson, 330 ft. out of most southerly NW cor. of 252.8-ac. tract, William P. Wyche Sur. ..... Derrick.

**HILL COUNTY**

Spikes et al's No. 1 Holman, 150 ft. from NW cor. of 100-ac. tract, one-half mile S of Mt. Calm, Latham Sur. ..... Rig up.

**HOPKINS COUNTY**

S. P. Corley's No. 1 Jumper ..... Moving in rig; T.D. 1,630 ft
Culberson & Lynch's No. 1 Louis Stribling, 150 ft. from NW cor. of tract and lease, Thomas Norris Sur. .. Rig up.
Delworth-Hogan and Ashby's No. 1 Logan, 250 ft. from S and E lines of 175-ac. tract, A. L. Wetman Sur. .. Rig up.
Pete Wiggins et al's No. 1 fee, 400 ft. from S line and 567 ft. from W line of 48-ac. tract, Nacogdoches University Lands Sur. ..... Rig up.

**HUNT COUNTY**

Solar Exploration Co.'s No. 1 Smith, 210 ft. from E line and 370 ft. from S line of lease, William Glass Sur. ..... T.D. 1,500 ft.
Solar Exploration Co.'s No. 1-A N. A. Gregory, 150 ft. from W line and 450 ft. from S line of lease, William Glass Sur. ..... Drlg. 200 ft.

**KAUFMAN COUNTY**

Sisy-Bentley-Brewer et al's No. 1 J. B. Hunter, 300 ft. from S line and 150 ft. from SE line of 500-ac. tract, 4 miles S of Terrell, R. Sowell Sur. ..... S.D. 1,615 ft.

**LEON COUNTY**

Bateman et al's No. 1 A. C. Carlyle, 150 ft. out of NE cor. of survey, Mary Elem Sur. ..... Rig up.
Shell Petroleum Corp.'s No. 1 Beggs, center of 123.5-ac. tract, John Carter Sur. ..... Derrick.

**LIMESTONE COUNTY**

C. C. Curtis et al's No. 1 Emma Daniels, 150 ft. from W line and 150 ft. from S line of 42.5-ac. tract in Pedro Varela Sur. ..... Set surface csg. 60 ft.

**RED RIVER COUNTY**

Ajo Oil Co.'s No. 1 Nickels & Daniels, center of 5 760 acres of 1,808-ac. tract, 8 miles N of English, Hugh B. Shaw Sur. ..... Rigging up.

**RUSK COUNTY**

Ajo Oil Co.'s No. 3 Sanders, 1,280 ft. from N line and 6,720 ft. from W line of survey, T. J. Martin Sur. .. Drlg. 3,400 ft.
J. Boren's No. 3 A. Holt, 1,500 ft. from N line and 1,230 ft. from W line of survey, D. Clark Sur. ..... Derrick.
Combined Oil Co.'s No. 14 G. W. Eaton, 330 ft. from S line and midway between Nos. 6 and 9, F. Cordova Sur. ..... Derrick.
Cordova Union Oil Co.'s No. 1-D C. O. Christian, 1,400 ft. from N line and 1,830 ft. from W line of survey, D. Clark Sur. ..... Derrick.
Griffin & Barnes' No. 1 fee, 12 ft. from S and W lines of 3-ac. tract, J. B. De Cadena Sur. ..... Waiting on cmt. to set
Gulf Production Co.'s No. 7 C. H. Grissom, 4,760 ft. from S line and 4,800 ft. from W line of survey, F. Cordova Sur. ..... Derrick.
H. L. Hunt's No. 9-A H. C. Maxwell, 150 ft. from E line and midway between No. 1-A, F. Cordova Sur. .. Rig up.
Jordan & Ramsey's No. 1 L. W. Prior, 330 ft. from N line and 667 ft. from E line of 53-ac. lease, Walker Patti Sur ..... Drlg. 625 ft.
Lion Oil & Refining Co.'s No. 10-B H. Brooks, 5,520 ft. from S line and 1,420 ft. from E line of survey, M. J. Pru Sur. ..... Derrick.
Mid-Kansas Oil & Gas Co.'s No. 1 Robert Van Zandt, 1,123 ft. S and 358 ft. E of SW cor. of Stanolind-Pure, Rae Lacy 100-ac. tract, J. H. Sparks Sur. ... Derrick.
Mid-Kansas Oil & Gas Co.'s No. 13 S. H. Moores, 3,800 ft. from E line and 790 ft. from S line of survey, M. J. Pru Sur. ..... Derrick.
Mid-Kansas Oil & Gas Co.'s No. 14 E. E. Moores, 140 ft. from S line and 3,360 ft. from E line of survey, M. J. Pru Sur. ..... Rig up.
Mid-Kansas Oil & Gas Co.'s No. 15 E. E. Moores, 3,720 ft. from E line and 660 ft. from N line of survey, J. B. De Cadena Sur. ..... Derrick.
Walker Murray et al's No. 1 W. H. Arnold, 330 ft. from S and W lines of 50-ac. tract, Levi N. Sparks Sur. ..... Skidding 24 ft. south.
Patterson Drlg. Co.'s No. 3 Brock Estate, 2,320 ft. from N line and 100 ft. from E line of survey, R. W. Smith Sur. ..... Derrick.
W. S. Randall's No. 2 Buntyn, 136 ft. W and 102 ft. N of NW cor. of Shell's Rosa Russell lease, J. C. Snow Sur. ..... Drlg. 3,970 ft.
Snowden and McSweeney's No. 10 R. Laird, 820 ft. from N line and 1,400 ft. from W line of survey, W. P. Chisum Sur. ..... Set surface csg. 184 ft.
Tex-Jersey Oil Corp.'s No. 1 Gaston Ind. School, 165 ft. from S line and 4,550 ft. from W line of survey, M. J. Pru Sur. ..... Rig up.
Tide Water Oil Co.'s No. 5 F. L. Buntyn, 50 ft. from W line and 1,310 ft. from N line of survey, T. C. Snow Sur. ..... Drlg. 3,600 ft.
Turman Oil Co.'s No. 7 Brightwell, 2,300 ft. from N line and 890 ft. from W line of lease, R. E. Winn Sur. ..... Rig up.

**SMITH COUNTY**

Long Drilling Co.'s No. 3 G. A. Turner, D. W. Campbell Sur. ..... Derrick
Mundt et al's No. 1 O. G. Funderburg, 330 ft. from NW cor. of 63-ac. tract, Victory Loupy Sur. ..... Drlg. 4,800 ft.

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Sun Oil Co.'s No. 1 Mrs. E. Jarvis, 990 ft. from most westerly W line and 330 ft. N of interior cor. of 63-ac. tract, W. Smith Sur. ..... Rig up.
Texarana Oil Co.'s No. 2 S. S. Cook, 3,780 ft. from N line and 7,580 ft. from E line of survey, J. Vargus Sur. ..... Derrick.

TITUS COUNTY

Garland Hallett et al's No. 1 W. W. Jackson, 330 ft. from S and E lines of 20-ac. tract, J. E. Hopkins Sur. ..... Rig up.

UPSHUR COUNTY

Perrin and Fell's No. 6 C. C. Landers, 370 ft. from N line and 2,700 ft. from W line of survey, G. W. Hooper Sur. ..... Derrick.
B. F. Phillips' No. 2 L. P. League, 490 ft. from N line and 1,000 ft. from W line of survey, H. F. Rodgers Sur. ..... Drlg. 2,620 ft.
Rosier and Pendleton's No. 2 E. C. Evers, 1,780 ft. from W line and 4,700 ft. from N line of survey, G. W. Hooper Sur. ..... Derrick.
Rosier and Pendleton's No. 3 E. C. Evers, 350 ft. from N line and 4,700 ft. from W line of survey, G. W. Hooper Sur. ..... Drlg. 3,536 ft.
Wadley and Lyons' No. 1 Mrs. Susie Smith, 330 ft. from NW cor. of Mrs. Susie Smith's 130-ac. tract, J. Halbert Sur. ..... Drlg. 2,750 ft.
Wadley & Lyons' No. 3 Shuttlesworth, 330 ft. from S line and 270 ft. from E line of lease, James M. Dunn Sur. ..... Drlg. 1,500 ft.

VAN ZANDT COUNTY

C. P. Cole et al's No. 1 Mrs. S. Tunnell, 150 ft. from S and E lines of 66-ac. tract, M. Gross Sur. ..... Testing 1,380 ft.
Golf Oil Co.'s No. 1 Gillentine, 150 ft. from S and E lines of E 4 acres of 43-ac. tract in Nacogdoches County School Land Sur. ..... Drlg. 887 ft.
Isaac et al's No. 1 E. T. Rhodes, 150 ft. from S and E lines of 32-ac. tract, William Page Sur. ..... Derrick.
G. S. Manning and W. H. Carlin's No. 1 Howell Bivens, 150 ft. E of the E line of Mollie High 5 acres and 150 ft. N of S line of W. H. Bunch Sur. ..... S.D. 1,387 ft.
Petroleum Pipe Line Co.'s No. 1-A Mrs. S. McGee, 173 ft. from S line and 660 ft. from E line of Blk. No. 26, William Daniel Sur. ..... Testing 1,287 ft.
Petroleum Pipe Line Co.'s No. 3 Mrs. S. McGee, 650 ft. from S line and 150 ft. from W line of Blk. No. 17, William Daniels Sur. ..... Rig up.
Pure Oil Co.'s No. 6 H. P. Tunnell, 596 ft. S of N line and 225 ft. W of E line of H. P. Tunnell 131.5-ac. tract, James Rose Sur. ..... Setting liner; T.D. 2,935 ft.
Pure Oil Co.'s No. 7 C. L. Swain, 250 ft. S of N line and 250 ft. W of E line of O. L. Swain, S 40-ac. tract of E 70-ac. tract, John Walling Sur. ..... Drlg. 1,952 ft.
Reasonover et al's No. 1 D. T. Cole, 150 ft. from S and E lines of 45-ac. tract, Nacogdoches County School Land Sur. ..... Fishing for bailer 1,175 ft.
Van Oil Association's No. 1 Tankersley, 200 ft. from E and 1,000 ft. from S of farm, L. Landers Sur. ..... T.D. 2,850 ft.; skid 50 ft. W and set 10-in. csg. at 181 ft.; waiting on cmt.

## Wildcat Operations in West Texas

**Week Ending June 12**

BREWSTER COUNTY

| Company, well, farm name, section and block— | Remarks: |
|---|---|
| Joiner's No. 1 McIntire, 853 ft. from S and 2,390 ft. from E, Sec. 31, Blk. 852, W. J. Mitchell Sur ... | S.D. 600 ft. |

CONCHO COUNTY

Beasley et al's No. 1 Waring Estate, 400 ft. from N and E, Sec. 163, T.&N.O. Sur. ..... T.D. 2,586 ft.; pumping 5 bbls. oil per day and some water.

CRANE COUNTY

Loffland Bros.' No. 1 Tubbs, 1,334 ft. from N line and 1,320 ft. from W line of Sec. 5, Blk. B-37, P.S.L. Sur... Drlg. 110 ft.

CULBERSON COUNTY

Miller Bros.' No. 1 fee, 1,980 ft. from N line and 660 ft. from E line of Sec. 61, Blk. 97, P.S.L. Sur. ..... Drlg. 971 ft.

ECTOR COUNTY

Cherry et al's No. 1 Johnson, 1,320 ft. from S line and 660 ft. from E line of Sec. 41, Blk. 43, Twp. 1s, T.&P. Sur. ..... Drlg. 2,660 ft.
L. C. Harrison et al's No. 1 Addis, 330 ft. from N and 1,320 ft. from W. Sec. 35, Blk. 43, Twp. 2s, T.&P. Sur. Flowing average of 175 bbls. oil per day to tanks; T.D. 4,061 ft.
Landreth Prod. and The Texas Company's No. 1 Holt, 660 ft. from S line and 1,625 ft. from E line of Sec. 16, Blk. 43, Twp. 1n, T.&P. Sur. ..... Swabbing hole preparing to shoot; T.D. 4,450 ft.
Thomas et al's No. 1 Edwards, 330 ft. from S, 2,310 ft. from E. Sec. 33, Blk. 43, Twp. 3s, T.&P. Sur. ..... Set casing at 4,337 ft.
Fred Turner's No. 1-A Addis, 1,650 ft. from N line and 2,300 ft. from E line of Sec. 35, Blk. 43, Twp. 2s, T.&P. Sur. ..... Running csg.; T.D. 3,687 ft.

FISHER COUNTY

Cranfill & Reynolds' No. 2 George, 330 ft. from N and W lines of NE of Sec. 200, Blk. 1, B.B.B.&C. Sur. ... Drlg. 3,158 ft.
Southern Oil Co.'s No. 1 Beavers, 330 ft. from W and 660 ft. from S of S half of SW Sec. 193, B.B.B.&C. Sur. ..... Drlg. 2,675 ft.

GARZA COUNTY

F.H.E. Oil Co.'s No. 1 Stoker ..... T.D. 2,989 ft.

GLASSCOCK COUNTY

Humble Oil & Refining Co.'s No. 1 Washer, 330 ft. from N line and 330 ft. from E line of Section 36, Blk. 33, Twp. 3s, T.&P. Sur. ..... 1,800 ft. oil in hole; S.D.; T.D. 2,121 ft.

HOWARD COUNTY

M. D. Bryant et al's No. 1 L. C. Denman, 1,310 ft. from S and W lines of Sec. 10, Blk. 30, Twp. 1s, T.&P. Sur. ..... Drlg. 2,275 ft.
Eppenauer et al's No. 1 Leatherwood, C of SE of NW, Sec. 35, Blk. 33, Twp. 1n, T.&P. Sur. ..... Material on ground.
L. C. Harrison's No. 4 L. C. Denman, 2,370 ft. from the E line and 2,325 ft. from S line of Sec. 10, T.&P.R.R. Sur., Blk. 30, Twp. 1s ..... Drlg. 2,515 ft.
Jack Wallace et al's No. 1 Scott, 990 ft. from N and 330 ft. from E lines of Sec. 92, Blk. 29 W.&N.W. Sur. ..... Shot 20 qts. 1,347-61 ft.; production estimated 5 bbls. of oil per day; T.D. 1,367 ft.

JONES COUNTY

Condor Pet. Co.'s No. 1 Holt, 1,980 ft. from S and 1,650 ft. from W, Sec. 4, Blk. 26, T.&P. Sur. ..... Drlg. 1,800 ft.
Dyer's No. 1 Odom, 990 ft. from S and 170 ft. from W of N 320 acres, G. Zumwalt Sur. ..... Drlg. 110 ft.

LOVING COUNTY

Eppenauer Drlg. Co.'s No. 1-A Victor, 330 ft. from SW and 333 ft. from SE of NW of N half Sec. 4, Blk. 3, W.&N.W. Sur. ..... Rigging up standard tools

PECOS COUNTY

A. & M. Pet. Co.'s No. 1 University, 1,725 ft. from S line and 330 ft. from E line of Sec. 31, Blk. 16, University Sur. ..... Drlg. 1,175 ft.
Humble Oil & Ref. Co.'s No. 1 White-Baker Co., 1,320 ft. from N and E lines of Sec. 44, Blk. Z, T.C.R.R. Sur. ..... Cmtd. off gas; T.D. 1,715 ft.
Kimberlin et al's No. 1 B. D. Gregg, 2,488 ft. from NW and 150 ft. from NE, Sec. 101, Blk. 10, H.&G.N. Sur... Drlg. 990 ft.
Wahlenmaier et al's No. 1 Monroe, 5,060 ft. W and 330 ft. N from SE cor. of Sec. 41, Blk. 1, L.&G.N. Sur. ... S.D. 2,322 ft.

REAGAN COUNTY

Big Lake Oil Co.'s No. 8-C University, 710 ft. from S and 2,410 ft. from E, Sec. 12, Blk. 2 ..... Flowed 2,072 bbls.; T.D. 8,800 ft.
Big Lake Oil Co.'s No. 9-C University, 2,410 ft. from N and 765 ft. from E, Sec. 12, Blk. 2 ..... Set tubing; T.D. 8,647 ft.
Big Lake Oil Co.'s No. 10-C University, 2,025 ft. from S and 375 ft. from W, Sec. 25, Blk. 9 ..... Drlg. 8,186 ft.
Big Lake Oil Co.'s No. 11-C University, 2,300 ft. from S line and 2,140 ft. from E line, Sec. 12, Blk. 2, University Sur. ..... Running csg. 3,935 ft.
Continental Oil Co.'s No. 7-B University, 1,900 ft. from N and 650 ft. from W, Sec. 24, Blk. 9 ..... Drlg. 3,670 ft.
Continental Oil Co.'s No. 8-B University, 1,300 ft. from S and 1,775 ft. from W, Sec. 25, Blk. 9 ..... Flowed 4,249 bbls.; T.D. 8,695 ft.
J. P. Williams et al's No. 1 Scott, 1,650 ft. from N and 330 ft. from W, Sec. 179, Blk. 1, T.&P. Sur. ..... Drlg. 1,685 ft.

RUNNELS COUNTY

Dutton et al's No. 1 Dean, 5,475 ft. from NE and 1,048 ft. from NW in J. Heil Sur. No. 519 ..... S.O. 3,417-30 ft.; S.D. 3,600 ft.
John Caster's No. 1 Hall, 330 ft. from S and W, Sec. 149, E.T.R.R. Sur. ..... Spudded.

SCHLEICHER COUNTY

Eastland Oil Co.'s No. 1 Joe Tisdale, C Sec. 29, Blk. M, G.H.&S.A. Sur. ..... S.D. 5,939 ft.
Wesner et al's No. 1 Nicks, 2,310 ft. from N and 2,302 ft. from E of Sec. 77, Blk. LL, T.C. Sur. ..... Drlg. 6,350 ft.

UPTON COUNTY

Gulf Prod. Co.'s No. 103 McElroy, 1,980 ft. from S and 660 ft. from W, Sec. 197, Blk. F, C.C.S.D.&R.G.N.G.... Drlg. 3,096 ft.

WARD COUNTY

George Bentley et al's No. 1 C. Bergman, 330 ft. from NE line and 2,310 ft. from NW lines of Sec. 26, Blk. 5, H.&T.C. Sur. ..... Fishing for tools; T.D. 2,647 ft.
George Bentley et al's No. 1 A. Emery, 1,320 ft. from NE line and 2,310 ft. from NW line of Sec. 26, Blk. 5, H.&T.C. Sur. ..... Drlg. 2,301 ft.
W. A. Black et al's No. 1 Ann B. Gordon, 990 ft. from NW and 330 ft. from NE lines of Sec. 6, Blk. 34, H.&T.C. Sur. ..... Drlg. 2,328 ft.
Eppenauer Drlg. Co.'s No. 1 G. S. Comos, 495 ft. from N line and 495 ft. from NW line of Sec. 4, J. W. Hollingsworth Sur. ..... Spudded and S.D.
Eppenauer Drlg. Co.'s No. 1 University, 330 ft. from N and 440 ft. from E of S half of Blk. 16 ..... Rig.
Gerber O. & G. Co.'s No. 1 Stubbs, 330 ft. from S, 990 ft. from W, Sec. 9, Blk. 2, B.&B. Sur. ..... Cellar
Gulf Prod. Co.'s No. 16 Hutchings, 1,923 ft. from S and 1,650 ft. from W, Sec. 5, Blk. F ..... Swabbing and cleaning out; T.D. 2,754 ft.
Gulf Prod. Co.'s No. 17 Hutchings, 330 ft. from W line and 1,151 ft. from S line of Sec. 5, Blk. A, G.&M.M.B.&A. Sur. ..... Cleaning out; T.D. 2,614 ft.
Gulf Prod. Co.'s No. 30 O'Brien, 990 ft. from S line and 660 ft. from W line of Sec. 6, Blk. F, G.&M.M.B.&A. Sur. ..... Swabbing and testing; T.D. 2,839 ft.
Humble Oil & Ref. Co.'s No. 1 Louis Richter et al, 1,650 ft. from the NE line and 990 ft. from SE line of Sec. 27, H.&T.C. Sur., Blk. 34 ..... Spraying 2 bbls. oil per hour and est. 5,000,000 ft. of gas.
Skelly Oil Co.'s No. 2 Brillhart, 1,320 ft. from SE line of Sec. 13, Blk. 34, H.&T.C. Sur. ..... S.D. 2,513 ft.; T.P. 2,438 ft.
Sturm-Simms' No. 4 Jones, 2,310 ft. from NE line and 1,650 ft. from S line of Sec. 25, Blk. B-29, P.S.L. Sur... Preparing to run tubing; T.D. 2,620 ft.
Wahlenmaier Pet. Corp.'s No. 1 Bergman, 2,310 ft. from NE line and 1,650 ft. from SE line of Sec. 26, H.&T.C. Sur. ..... Pulling pipe; T.D. 2,112 ft.

WINKLER COUNTY

Colonial Oil Co.'s No. 2 State Scarborough, 990 ft. from W and 102½ ft. N of the NE cor. of Sec. 1, School Blk. 77, located in Sec. 1, Blk. W.P. ..... Rig up.
Sid Richardson's No. 3 John Scally, 2,310 ft. from the N line and 330 ft. from the W line of Sec. 94, G.&M.M.B.&A. Sur ..... Derrick.

## Wildcat Operations in Texas Panhandle

**Week Ending June 12**

CARSON COUNTY

| Company, well, farm name, section and block— | Remarks |
|---|---|
| The Texas Co.'s No. 3-B Garner, 990 ft. N and E, Sec. 95, Blk. 4, I.&G.N. Sur. | T.D. 3,040 ft.; swabbed 87 bbls. first 14 hrs. |

DEAF SMITH COUNTY

Western Union Oil Co.'s No. 1 Farwell, Sec. 18-3n-3e.... T.D. 1,500 ft.

GRAY COUNTY

British American Oil Co.'s No. 3 Phillips, 330 ft. from S and W lines of W½ of E½ of Section 27, Block No. 3 L.&G.N. Survey ..... Derrick.
R. Duniap's No. 1 Priest, 990 ft. S and 330 ft. W Sec. 14, Blk. S, J. C. Short Survey ..... Drlg. 2,195 ft.
Gulf Production Co.'s No. 3-A Catlin, 330 ft. from S and W lines of Gulf lease in NE of Section 57, Block 3 L.&G.N. Survey ..... Drlg. 2,695 ft.
Hendron et al's No. 1 Husselby, 330 ft. S and E of SW SW Sec. 11, Blk. A-9, H.&G.N. Sur. ..... Rig.
Masda-Shell's No. 4 Coombs-Worley, 990 ft. from N line 330 ft. from E line, Sec. 35, Blk. 3, L.&G.N. Sur... Rig.
Tedesco-Bell O. & G. Co.'s No. 4 Morse, 990 ft. N and W SE. Sec. 1, Blk. 36, H.&G.N. Sur. ..... Cleaning out, T.D. 2,542 ft.
The Texas Co.'s No. 4 Brown, 330 ft. N, 990 ft. W of W½ Sec. 137, Blk. 3, L.&G.N. Sur. ..... Shot with 140 qts.; T.D. 3,264 ft.
Geo. Travis' No. 3-B Webb, 990 ft. N and W, Sec. 61, Blk. 25, H.&G.N. Sur. ..... Drlg. 2,985 ft.
Warner Oil Co.'s No. 1 Webb, 660 ft. from S and W of W 80 of N½ Sec. 42, Blk. 25 ..... S.D. 2,208 ft.

HUTCHINSON COUNTY

Alexander's No. 1 Cockrell, 330 ft. N and E of E 80 of S 160 Sec. 3, Blk. M-2, T.C. Sur ..... S.D. 2,029 ft.
Badger Oil Co.'s No. 5 Lewis, 2,375 ft. from S, 330 ft. from W, Sec. 18, Blk. L, E.L.&R.R. Sur. ..... T.D. 2,228 ft.
Dixon Creek Oil Co.'s No. 1 Halle, 660 ft. east of Alexander's No. 1 Cockrell, Sec. 4, Blk. M-21, T.C.R.R.. Drlg. 555 ft.
E. W. Means et al's No. 1 Pond, 330 ft. S and E, N½ of E 165½ acres, Sec. 3, Blk. M-21, T.C.R.R. Sur. .. Drlg. 1,550 ft.
H. Stekol's No. 4 G. A. Whittenburg, 450 ft. from N line, 990 ft. from W line, Sec. 38, Blk. M-23, T.C. R.R. Sur. ..... Spudded and S.D.

RANDALL COUNTY

Woolsey & Devore's No. 1 Below, 330 ft. N and 1320 ft. E of NE, Sec. 95, Blk. 2, A.B.&M. Sur. ..... Rig up.

WHEELER COUNTY

Bell O. & G. Co.'s No. 1 Evans, 330 ft. N and E of NW Sec. 51, Blk. 24, H.&G.N. Sur. ..... Shot with 170 qts.; T.D. 2,330 ft; will test later.
Delaney et al's No. 1 Sitter, 330 ft. from S and W of E half NE. Sec. 32, Blk. 24 ..... S.D. 2,711 ft.
Rogers & Harner's No. 1 J. O. Clark, 990 ft. S and W of Sec. 4 Blk. 24 H.&G.N. Sur ..... Rig.
The Texas Co.'s No. 2 Bentley, 330 ft. N and W of W½ of SW¼, Sec. 43, Blk. 24, H.&G.N. Survey.... Drlg. 1,160 ft.

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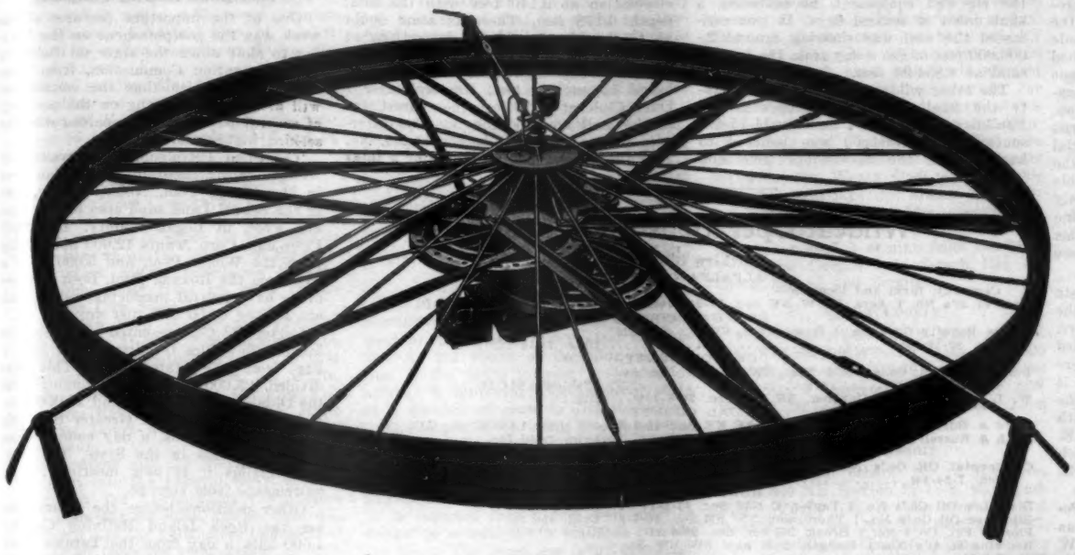
Years of continuous—economical—dependable and satisfactory performance on hundreds of installations have proven beyond THEORY OR DOUBT that the sound engineering principles incorporated in the design and construction of

## REID BAND WHEEL POWERS



has established them as the correct means of pumping multiple wells from a central power. Their ability to absorb shock loads—easily and smoothly pull the heavy loads—deliver uninterrupted service over long periods of time—commends their installation to the men responsible for dividend paying results from pumping properties under their management.

## REID

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GAS ENGINES

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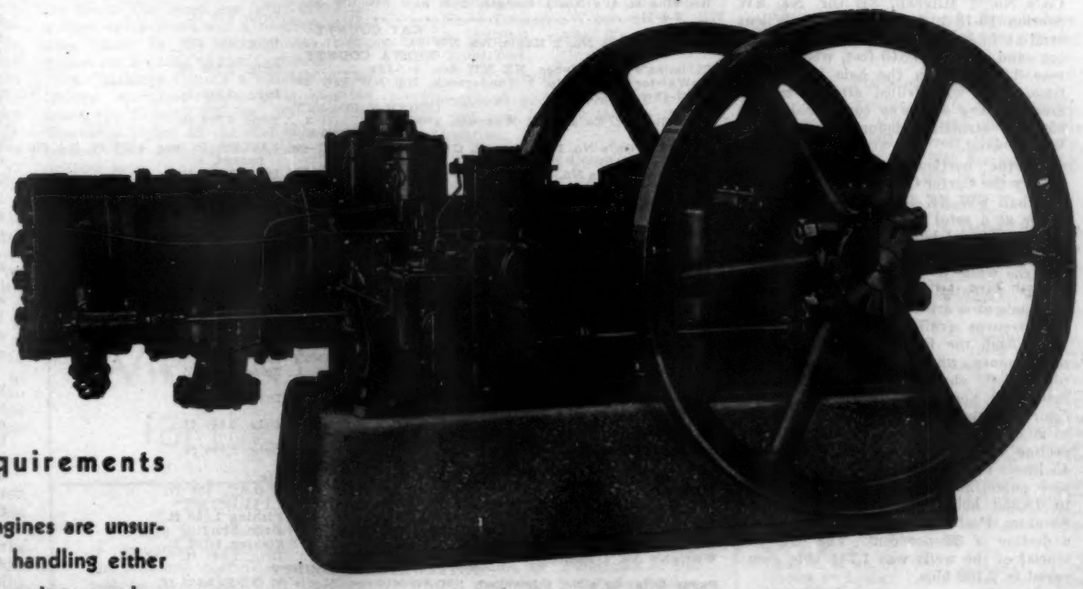

These TYPE "C" Reid Gas Engines are unsurpassed as a power source for handling either individual or multiple well pumping requirements. They are available in sizes ranging from 35-40-45 H. P. to the large 14½ x 18" and 15 x 18" sizes which latter sizes will develop well over 100 H.P. at moderate speeds.

*Our facilities for handling installations of complete pumping systems are unexcelled. Inquiries covering your pumping equipment needs are invited.*

## FRICK-REID SUPPLY CORPORATION

PITTSBURGH, PENNA. - TULSA, OKLA.

# Oklahoma Shut Down Hearing Will be June 27; Seminole Potentials Show Little Falling Off

By W. A. SPINNEY
Staff Correspondent, Oklahoma Fields

The hearing on the subject of shutting down all wells in Oklahoma to a maximum of 25 bbls. per day as a protest against the low price of crude oil was postponed to Tuesday, June 27, by the Corporation Commission. The first returns of new potential tests from the Greater Seminole area indicate only a small decline from the previous tests which were taken about 18 months ago.

In the southwest part of the Wentz Pool, near Lucien, in Noble County, the Shell Petroleum Corp.'s No. 1 M. Farr, C NE SE Section 19-20-2w, was drilled to a total depth of 5,385 feet, where water rose 300 feet in the hole and it was shut down. This test is outside the unitized block and it is a half mile south of the Lucien Community's No. 1 E. Farr, C NE NE Section 19-20-2w, which was recently completed for 1,330 bbls. of oil in four and one-half hours.

In Payne County the Amerada Petroleum Corp. and Stanolind Oil & Gas Co.'s No. 1 Mitchell, SE cor. NE SW Section 15-18-3, found the first Wilcox sand at 4,244-66 feet and the second Wilcox sand at 4,282-4,315 feet, where water rose 3,000 feet in the hole in a short time. This was drilled after a seismograph survey and was considered to be high on structure, before reaching the Wilcox sand.

In the northern part of Seminole County the Carter Oil Co.'s No. 1 Canard, C S half SW SE Section 35-11-6, found water at a total depth of 4,488 feet. It will be plugged back to the Hunton lime at 4,090-4,222 feet, where it showed oil and gas while it was drilling.

The potential tests in the Greater Seminole area are not yet completed. The only returns available at this time are those from the Bowlegs Field in Seminole County, where 52 leases out of the total of 62 show a decline of approximately 11 per cent. The new potential figure for these is 18,308 bbls. compared to 20,618 bbls. The Allen Field shows a decline of nine-tenths of 1 per cent from 45 leases out of a total of 73 leases. The new potential is 18,085 bbls., compared to 18,353 bbls. The returns from the Sasakwa Pool in Seminole County show a decline of 36 per cent. The new potential of the wells was 1,741 bbls. compared to 2,706 bbls.

### Production by Pools

The daily average production from the principal pools in the State for the week ending June 8 was as follows:

| Pool— | Week ending June 8 | Previous week |
|---|---|---|
| Bowlegs | 5,245 | 7,485 |
| Bristow-Slick | 10,000 | 10,000 |
| Burbank | 9,750 | 9,750 |
| Carr City | 6,945 | 7,835 |
| Earlsboro | 10,675 | 10,800 |
| East Earlsboro | 14,395 | 15,160 |
| South Earlsboro | 1,155 | 1,455 |
| Little River | 13,830 | 13,865 |
| East Little River | 1,100 | 1,115 |
| Oklahoma City | 180,715 | 141,181 |
| Seminole City | 9,010 | 9,232 |
| Tatums | 4,000 | 4,000 |
| Total | 269,100 | 221,831 |
| Others | 185,900 | 186,030 |
| Total State | 455,100 | 413,571 |

When the gas was ignited at the Gypsy Oil Co.'s No. 1 McConnell, C NE SE, Section 28-17-4w, a wildcat in Logan County, early in the week it damaged the rig and equipment, necessitating a shut down of several days. It was estimated the well was showing around 2,000,000 feet of gas a day from the Layton sand at 4,854-96 feet.

The other wildcat test in Logan County the Shell Petroleum Corp.'s No. 1 Faulkner, C SE NW, Section 11-15-4w, southwest of Guthrie, was believed to have missed the Mississippi lime and found the Chattanooga shale at 6,114 feet, which now looks like the test was running high on structure. The test lost circulation at 6,140 feet with the total depth 6,178 feet. There is some doubt as to the identity of the formations at 6,140-78 feet, due to the failure to get samples. The Chattanooga shale was found in another test, Ramsey's No. 1 Duck Club, at 6,310 feet, the nearest test to the well now drilling but the difference in elevation is to be considered. No. 1 Faulkner was landing casing at a total depth of 6,400 feet. The Viola lime was found at 6,365 feet.

## Wildcat Operations in Oklahoma

### Northern Oklahoma

**ALFALFA COUNTY**

Company, farm and location— Remarks:
Acre et al's No. 1 Acre, C SW NE Sec. 14-24-11w..... O.W.D.D.; drlg. 5,532 ft.

**BECKHAM COUNTY**

Pattee Royalty Co.'s No. 1 Goose Tree, SW SE SW SE Sec. 32-10-23w ..... Drlg. 2,220 ft.

**CADDO COUNTY**

Denver P. & R. Co.'s No. 1 Noe, NW SW SW Sec. 34-10-10w ..... Fishing 8,854 ft.
W. L. Miller's No. 1 Gardner, SE SW Sec. 26-6-10w.... Rig.

**COAL COUNTY**

Dod'd & Burton's No. 1 Grigsby, NW SE NE Sec. 35-1-8.. Oil show 1,858-67 ft; C.O.
Funk & Russell's No. 1 Miller, SE NE Sec. 10-2-8 ..... Drlg. 2,940 ft.

**GARFIELD COUNTY**

Continental Oil Co.'s No. 1 Thompson, NW SW SW Sec. 7-24-4w ..... Drlg. 6,309 ft.

**HUGHES COUNTY**

Dixie-Lee Oil Co.'s No. 1 Taylor, C NW Sec. 27-5-10.... Drlg. 350 ft.
Gilcrease Oil Co.'s No. 1 Thompson, NW SE Sec. 34-7-8.. Drlg. 450 ft.
Pioneer Pet. Co.'s No. 1 Brock, SE cor. Sec. 26-5-11 ..... Rig.
Redwine et al's No. 1 Badger, C N half SW SW Sec. 4-5-11 ..... Drlg. 330 ft.

**KAY COUNTY**

Blauner et al's No. 1 Maple, NE NW SE Sec. 20-27-4.... Drlg. 660 ft.

**KIOWA COUNTY**

Christian's No. 1 Jones, NE NW Sec. 8-7-18w ..... Drlg. 1,705 ft.
McWhirter et al's No. 1 Vanderneck, NE NW Sec. 3-7-19w (O.W.D.D.) ..... Drlg. 2,155 ft.

**LINCOLN COUNTY**

Magnolia Pet. Co.'s No. 1 Wagoner, SW SE Sec. 2-14-3 .. Drlg. 2,000 ft.

**LOGAN COUNTY**

Gypsy Oil Co.'s No. 1 McConnell, C NE SE Sec. 28-17-4w. 2,000,000 ft. gas 4,854-96 ft.; rig burned.
Shell Pet. Corp.'s No. 1 Faulkner, C SE NW Sec. 11-15-4w. Drlg. 6,250 ft.

**MURRAY COUNTY**

A. E. Harden's No. 1 Sadler, NE Sec. 19-1-2..... Rig.

**MUSKOGEE COUNTY**

J. S. Routt et al's No. 1 Escoe, CWL SE NE Sec. 17-13-17. Machine.

**NOBLE COUNTY**

Shell Pet. Corp.'s No. 1 Farr, C NE NE, Sec. 19-20-2w.. Wilcox sand 5,000-27 ft; second sand 5,065-5,144 ft.; flow 1,110 bbls. 4 hours 40 min.; water broke in.
Sinclair Prairie's No. 1 Jerome, SW cor. Sec. 15-20-2w.. Drlg. Wilcox sand 5,256 ft.

**OKLAHOMA COUNTY**

Mid-Continental Oil Co.'s No. 1 Edwards, C SE SE Sec. 19-11-1 ..... Drlg. 260 ft.

**OKFUSKEE COUNTY**

Natl. Investors' No. 1 Billy, SE NW NW Sec. 29-12-9.... Show oil and gas 3,990-95 ft.

**PAYNE COUNTY**

Kemp & Nunnelee's No. 1 Crane, SW SE SW Sec. 19-17-6 Drlg. 1,110 ft.
O. N. Maines et al's No. 1 Scheldberg, NW SW NW Sec. 27-22-5 ..... Drlg. 2,650 ft.
Moffett & Hall's No. 1 Jones, C NE NW Sec. 14-5-14 .. Drlg. 2,200 ft.

**PITTSBURG COUNTY**

**PONTOTOC COUNTY**

Brydia et al's No. 1 Thomas, SW NE Sec. 20-2-7..... Rig.
Gilbert's No. 1 Starritt, NW SE Sec. 28-4-6..... W.O.S.C. 850 ft.
Choctaw O. & G. Co.'s No. 1 Thompson, SW NE SW Sec. 1-1-7 ..... Fishing 1,050 ft
W. E. McGraw's No. 1 Mayhue, NE Sec. 19-2-6..... Drlg. 730 ft.
Williams' No. 1 Kroth, NE SE Sec. 33-3-6..... Fishing 1,717 ft.
Wirrick's No. 1 Lee, SE SW Sec. 29-2-7 ..... Drlg. 1,527 ft.

**POTTAWATOMIE COUNTY**

Payne Drlg. Co.'s No. 1 Lovelace, NW SW NW Sec. 27-6-4 W.O.C.S. 3,623 ft.

**SEMINOLE COUNTY**

Filmlee's No. 1 Bowlegs, SE NE SW Sec. 1-7-7 ..... Drlg. 440 ft.
Armstrong et al's No. 1 Diamond, NE SE SW Sec. 3-6-7.. Spudding.
Donnelly et al's No. 1 Shepard, SE NE Sec. 4-8-8..... Sand 1,395-1,405 ft; wtr.; fishing 1,440 ft.

### Southern Oklahoma

**ATOKA COUNTY**

Blake's No. 1 Galbreath, SW NE SE Sec. 5-1-15 ..... Drlg. 1,110 ft.
L. R. Stewart et al's No. 1 Stewart, SE SE Sec. 2-4s-10 Drlg. 1,607 ft.
Wacker et al's No. 1 Baskett, SW NE NW Sec. 15-1-15.. Drlg. 195 ft.

**CARTER COUNTY**

P. Turner's No. 1 Dove, NE NW SE Sec. 3-5-1..... Rig.
E. M. Boring's No. 1 Morgan, C NE NW SW Sec. 4-1s-3w. Showing 12,000,000 ft. gas 2,038-39 ft.; showing 10 bbls. per hr; 8,000,000 ft. gas.

**JEFFERSON COUNTY**

Abbott et al's No. 1 Simmons, NW cor. Sec. 14-5s-6..... Drlg. 315 ft.
Hobbs' No. 1 Barnett, NE SE SW Sec. 32-5-5w..... Drlg. 2,190 ft.
Wakefield's No. 1 Kelly, NW SE Sec. 1-5-5w..... Drlg. 550 ft.

**MARSHALL COUNTY**

Thomas' No. 1 Setliff, SW SE SE SW Sec. 26-5-6..... Drlg. 1,110 ft.

**STEPHENS COUNTY**

Doyle Oil Co.'s No. 1 Cunningham, SE NE NW Sec. 4-1-4w ..... Drlg. 2,460 ft.
Navajo O. & G. Co.'s No. 1 Martin, SE SW NW Sec. 18-1-5w ..... Drlg. 4,210 ft.

**TILLMAN COUNTY**

Emenheser et al's No. 1 Pace, C SW Sec. 3-4s-17w..... Drlg. 2,960 ft.
Gypsy Oil Co.'s No. 1 Pitcher, NW Sec. 28-4s-15w..... Drlg. 2,764 ft.

### Shut Down Hearing Postponed

One of the important features of the week was the postponement on the hearing to shut down the state oil fields by the Corporation Commission, from June 9 to 27, at which time the commission will also hold a hearing on the petitions of several purchasing companies who are seeking higher allowables.

The Shell Petroleum Corp. wants the wildcat rating lifted in the Lucien area in the Wentz Pool, Noble County, and in the School Land sand area of the Roxana Pool, in Logan County. The Shell Petroleum Corp. wants 12,000 bbls. a day from the Wentz Pool, and 3,000 bbls. a day from the Roxana Pool. Both of these areas have several producing wells which are limited to 50 bbls. per day.

Carter Oil Co. presented a petition for higher allowables totaling 45,000 bbls. a day from the state fields. This was divided, 25,000 bbls. a day coming from the Oklahoma City Field and 15,000 bbls. a day coming from the Greater Seminole area and 5,000 bbls. a day coming from the other fields in the State. The company claims it is now meeting its requirements from storage.

Other petitions before the commission are the Rock Island Refining Co. for 1,000 bbls. a day from the Tatums Field in Carter County, and the Sunray Oil Co.'s petition for 1,000 bbls. a day from the Allen Field in Seminole County.

### Discrepancy in Production Reports

At the Corporation Commission's hearing on Wednesday a difference of approximately 3,000,000 bbls. of oil produced in the Oklahoma City Field, was reported to the proration department compared to the number of barrels on which gross production tax was paid to the state tax commission.

E. G. Dahlgren, deputy state umpire, and formerly in charge of records of the proration department, testified that crude oil reported to the state umpire totaled 14,169,412 bbls. for the first four months of 1933. The total for the first three months was 12,014,243 bbls.

S. B. Hudson, auditor of the tax commission, testified that operators during the first three months of 1933 paid taxes on 15,032,527 bbls. of oil produced in the Oklahoma City Field. He stated that in this total there was 1,761,000 bbls. of oil reported as having been produced in the Oklahoma City Field without a notation as to when it was produced.

A check of the records was made as the result of the testimony of Massena Murray, deputy state umpire. He said that it was reported that considerable Oklahoma City crude oil was available for purchase in the Greater Seminole district and that attempts to locate the oil through the umpire's records failed to show the quantity. He also said that some time ago a check of the tax records and those of proration department showed wide discrepancies.

The testimony before the commission early in the week dealt with the installation of meters and their use on oil pipe lines. Several witnesses stated that in checking the meters they registered within 1 per cent of the amount of oil showed on tank strappings under the gauge method. Witnesses also testified that it was impractical to install meters on each well, but they declared the meter was an efficient means of checking the oil in the discharge lines from the field.

The Champlin Refining Co. continued its attack on the policy of the Corpora-

tion Commission of granting water allowables and also for the failure to establish gas-oil ratio in the Oklahoma City Field. R. L. Clifton, petroleum engineer and geologist for the Champlin Refining Co., read into the record an exhibit showing what he alleged was discrimination due to water allowables five oil wells that also produce water and five clean oil wells, as based on proration allowables for last August. The exhibit showed that the five water wells, with a combined potential of 583 bbls. daily, were given an allowable of 19,629 bbls. and produced 23,124 bbls. during the month. The five clean wells had a combined potential of 35,923 bbls. and were granted an allowable for the month of 19,467 bbls. and produced 19,381 bbls.

Mr. Clifton also stated that owners of the so-called water wells were granted approximately 6,000,000 bbls. of market demand on water exemptions during the last two years.

After hearing Mr. Clifton the case was adjourned until Tuesday, June 20, because of the inability of certain witnesses to bring in records asked for by the commission.

### Sterling's Petition Rejected

The Oklahoma Corporation Commission refused to grant the Sterling Refining Co. an increase in crude oil nominations at the hearing on the petition of the company which sought permission to take 5,000 bbls. daily from its wells in the Oklahoma City Field.

Chairman Paul Walker and Commissioner E. R. Hughes voted against Jack Walton. The commissioners set the case down for hearing in 10 days. Sid White, attorney for the Sterling Refining Co., said he would go before the State Supreme Court at once for a writ of mandamus.

Two weeks ago the Sterling Refining Co. went into the Federal Court seeking to enjoin the Corporation Commission from enforcing its rules, but the case was dismissed and the petitioners told to first seek relief from the commission.

Sid White said that the Sterling Refining Co. had been shut down since the middle of April; that 84 employes had been stricken from the pay roll; that the company had contracts to meet; that 11,000 bbls. per month allowed from its own wells was insufficient to meet its needs, and that the State's gasoline market was being taken from the independents by major companies who have large stocks of crude oil upon which to draw.

The Sterling Refining Co. agreed to post a bond to insure against damages of drainage, Sid White said, and if not allowed to take sufficient oil from its own wells would purchase the amount ratably in the field at the posted price.

The Sterling Refining Co.'s case is similar to a recent petition of the Sinclair Prairie Oil Co. which asked the commission to increase the allowable of the Oklahoma City Field during the month of May, and of the Petroleum Pipe Line Co. which also asked for larger crude oil runs from the field.

### Waste of Gas Charged

Failure to establish a proper gas-oil ratio permitted the Oklahoma City Field to waste nearly 1,000,000,000 feet of gas a day for several months during the early part of this year, Mr. White said. Governor Murray shut the field down by executive order last March to prevent the waste of gas. He also said that if a gas-oil ratio was established in the field, and wells equipped to handle the restricted flow, there would be produced about 75 per cent as much oil and 12½ per cent as much gas as at the present time.

The witness recommended a gas-oil ratio of 3,000 to 4,000 feet of gas to the barrel of oil, but said that it might be fixed as high as 10,000 feet of gas to the barrel of oil. He said there is now an underground waste of oil and gas due to improper gas-oil ratios in the Oklahoma City Field.

The witness favored the system of strapping tanks as a means of measuring oil. Meters will work to advantage in measuring the oil after it has been permitted to stand in tanks and the foreign matters settled. Meters are used on major transportation lines to determine the regularity of pressure and aid in discovering losses of oil through leaks in the lines or handling at pump stations, he said.

### Increase in Oil Shipments

The movement of oil from the Oklahoma City Field during the month of May shows a substantial increase over the April shipments, notwithstanding the fact that a number of the producers withheld their oil from the market. The estimated total for the month of May is 3,782,228 bbls. compared to 2,488,678 bbls. for April. The estimated daily average for the entire month was 122,007 bbls.

The largest increase in shipments from the field was reported by the Phillips Petroleum Co. which increased its runs nearly 1,000,000 bbls. in May. This was due to the fact that its wells are producing from the Wilcox sand and these wells were shut down during most of April. Comparison figures on the major companies for the two months are as follows:

| Company— | May | April |
|---|---|---|
| Continental | 279,491 | 111,843 |
| Empire | 389,926 | 331,725 |
| Globe | 265,591 | 210,780 |
| Phillips | 1,199,376 | 23,667 |
| I.T.I.O. | 330,025 | 230,032 |
| Magnolia | 104,683 | 227,927 |
| Oklahoma | 120,695 | 337,345 |
| Stanolind | 424,253 | 553,013 |
| Total | 3,782,228 | 2,488,678 |

### Leasing Revival

For the first time in the last two years a number of lease blocks are being assembled in southern and central Oklahoma. As the result of declining production in the State interest in leasing of acreage is improving. Checkerboard plays in a number of acres is also underway.

The largest block being assembled centers around Sections 11, 12, 13 and 14 in Townships 7s-2w, Love County, in southern Oklahoma, where it is believed that 12,000 acres has been leased in a block. It is reported that a test well may be drilled to a total depth of 6,000 feet on the block. The leases are being taken for a term of 10 years and a number of Indian leases in the vicinity are being posted for bidding at the next sale.

In Oklahoma County a number of Oklahoma operators have been blocking leases in Section 23, 24, 25 and 26, Township 12-3w, on the east side of Oklahoma City and north of the present drilling zone.

Leasing has been active in Stephens County. There has been considerable blocking in Townships 2-6w, 2-7w and in 3-7w, in Grady County.

In Stephens County, a block is being assembled in Township 1-4w, after the area had been core drilled and a seismograph survey made during the last two years.

Another block is being assembled along the Carter-Garvin County line in Townships 1n-3w, and 1s-3w, north of the Tatums district.

In Pottawatomie County, scattered leasing has been in progress in the area south of the St. Louis Field, in Township 7-4, in Sections 29, 30, 31 and 32. Across the township line south, in Township 6-4, leasing has been under way.

### New Pipe Line Nearly Completed

The new pipe line to the Wentz Pool, in Noble County near Lucien, is expected to be completed by June 21. The Shell Petroleum Corp. is building the line and has asked the corporation commission to permit it to ship 12,000 bbls. a day. Hearing on the case has been set for June 20. The line will consist of 26 miles of 6-inch pipe, which will connect the wells in the Lucien area to the company's main pipe line system which runs north and south between the Kansas border and Cushing, Okla. The pipe line extends due east of the producing wells in the Wentz Pool and will tie into the main pipe line system at Goldsby station. The pipe line construction work is being done by the company. The pipe being used is coming from the Shell Petroleum Corp.'s twin 6-inch line between Stroud and Seminole.

### Carter County

Clowe and others' No. 1 Morgan, CNE NW SW Section 4-1s-3w, made 8,000,000 feet of gas from 2,038-39 feet. K. D. Oil Co.'s No. 2 Burton, SW cor. NW SW Section 30-1s-2w, made 180 bbls. from 2,307-2,533 feet.

### Creek County

Merritt and others' No. 6 Richards, CNL NE NE Section 27-18-8, was spudding. Tuttle Oil & Gas Co.'s No. 1 Anthis, NW cor. NE NE Section 1-19-7, was spudding. Central Com. Drilling Co.'s No. 4 Tucker, SW cor. SE SW SW Section 17-19-9, made 60 bbls. from 2,280-2,300 feet.

### Grady County

Youngblood and others' No. 1 Chapman, SW cor. SE SE Section 29-3-7w, is a location.

### Hughes County

Royce and others' No. 3 Walker, CSL SE NW Section 22-7-8, made 100 bbls. from 1,161-88 feet. Mainard and others' No. 2 Moore, NE cor. NW NE Section 22-7-8, made 45 bbls. from 1,179-1,202 feet. Manahan Oil Co.'s No. 2 Chapman, SW cor. SE SW Section 10-7-8, made 312 bbls. from 2,886-2,938 feet.

### Marshall County

J. Peacock's No. 4 Flinn, SW cor. NW SW SE Section 3-7s-6, was drilling at 500 feet.

### Muskogee County

Foltz & Godfrey's No. 4 Bema, SW cor. NE NE SW Section 8-15-18, made 8 bbls. from 1,655-86 feet.

### Oklahoma County

Beverly Hills Oil & Gas Co.'s No. 1 C. Davis, NE cor. NW Section 27-11-3w, is a location. Harrill-Davis' No. 1 J. Davis, CEL NE SW Section 22-11-3w, is a location. Inland Dev. Co.'s No. 1 River bed, C SW NW Section 2-11-3w, is a location.

### Okmulgee County

J. L. Selby's No. 1 Roberts, SE cor. SW Section 4-12-11, made 2,750,000 feet of gas from 2,680-85 feet. Sheldon Oil Co.'s No. 5 A. Grayson, SE cor. NW SE Section 15-13-12, made 25 bbls. from 2,884-2,915 feet.

### Okfuskee County

Regal Oil Co.'s No. 1 Simmer, NW cor. NE NE Section 11-10-11, made 3 bbls. from 1,619-47 feet.

### Osage County

Norbla Oil Co.'s No. 1, NE cor. NW Section 1-20-11, is a location. H. H. Markey's No. 13, CEL SW SE Section 25-23-8, is a location. Osage Syndicate's No. 15, NW cor. SE NW NW Section 7-21-9, was spudding. Gray & Tolson's No. 1, SE cor. SW Section 27-21-9, made 50 bbls. from 1,112-23 feet.

### Pawnee County

Watchorn Oil & Gas Co.'s No. 9 Miller. SW cor. SE SW Section 33-23-3, made 45 bbls. from 2,741 feet, total depth 4,131 feet.

### Pottawatomie County

Fixico Oil Co.'s No. 1 Brandenberg, NW cor. NE Section 33-7-4, was dry and abandoned at 4,299 feet.

### Pontotoc County

H. & M. Drilling Co.'s No. 2 Smith, NE cor. NW NE Section 29-5-8, made 60 bbls. from 867-84 feet. Delaney's No. 2 Smith, CWL NE NE Section 29-5-8, made 24 bbls. from 863-98 feet.

### Seminole County

Pure Oil Co.'s No. 7 Bates, NE cor. SE NE Section 13-6-7, made 117 bbls. from 2,875-80 feet.

OKLAHOMA-KANSAS
PIPE LINE STATEMENT FOR MARCH

| Company— | Month (bbls.) | Dy. av. (bbls.) |
|---|---|---|
| **Runs** | | |
| Gulf Pipe Line Co. | 1,506,583 | 48,600 |
| Texas P. L. Co. | 607,506 | 19,597 |
| Empire P. L. Co. | 2,201,780 | 71,025 |
| Magnolia P. L. Co. | 1,293,511 | 41,730 |
| Cosden P. L. Co. | 779,513 | 25,146 |
| Stanolind P. L. Co.* | 3,075,200 | 99,200 |
| Oklahoma P. L. Co. | 1,717,439 | 55,401 |
| Other lines | 8,122,000 | 262,000 |
| Total March | 19,303,336 | 622,639 |
| Total February | 15,616,643 | 557,737 |
| Difference | 3,686,693 | 64,952 |
| **Shipments** | | |
| Gulf P. L. Co. | 1,230,838 | 39,704 |
| Texas P. L. Co. | 1,066,483 | 34,403 |
| Empire P. L. Co. | 2,117,186 | 68,296 |
| Magnolia P. L. Co. | 1,258,933 | 40,611 |
| Cosden P. L. Co. | 663,010 | 21,387 |
| Stanolind P. L. Co.* | 3,566,954 | 115,064 |
| Oklahoma P. L. Co. | 1,810,423 | 58,406 |
| Other lines | 6,293,000 | 203,000 |
| Total March | 18,006,857 | 580,875 |
| Total February | 15,966,975 | 570,035 |
| Difference | 3,035,882 | 10,840 |
| **Stocks** | | |
| Prairie O. & G. Co.* | 32,296,000 | |
| Gulf P. L. and Gypsy Oil Co. | 6,628,917 | |
| Texas Co. | 2,558,832 | |
| Empire P. L. Co. | 4,870,961 | |
| Mid-Continent Petroleum Corp. | 2,239,446 | |
| Stanolind Crude Oil Pur. Co.* | 14,893,090 | |
| Magnolia Petroleum Co. | 7,327,439 | |
| Oklahoma P. L. Co. | 1,052,230 | |
| Carter Oil Co. | 2,280,730 | |
| Other lines | 19,439,000 | |
| Total March | 94,687,206 | |
| Total February | 92,857,590 | |
| Difference | 1,829,616 | |

*Estimated. Stanolind Pipe Line Co. shipments include Texas crude oil.


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# Another Wilcox Sand Producer in Hollow Pool, in Kansas, Adds Importance to That Area

By W. A. SPINNEY
Staff Correspondent, Kansas Fields

The Hollow Pool in Harvey County continues to be the most interesting area in Kansas. Oil operators have uncovered four producing horizons, the Kansas City-Lansing lime, the chat, Hunton lime and the Wilcox sand.

The Skelly Oil Co. completed a Wilcox sand well during the week, the second in the pool. The well was a failure in the Hunton lime and after it was treated with acid and oil failed to show, it was drilled to the deeper sand. This well started flowing at 60 bbls. an hour.

The third well to test the Wilcox sand horizon will be the Derby company's No. 2 Schmidt, NE cor. NW NW Section 17-22-3w, which was a failure in the Hunton lime at 3,406-44 feet. It found a showing of oil in the Sylvan shale and was drilling to test the Wilcox sand. The other well on this lease is producing from the Hunton lime.

The Mid-Kansas Oil & Gas Co.'s No. 2 Duerkson, SW cor. SE NE Section 19-22-3w, is the eighth chat producer in the Hollow Pool. It made 657 bbls. of oil in 10 hours from chat at 3,182-3,233 feet. The gas was estimated at 3,500,000 feet a day.

### Production by Pools

The daily average production of the principal pools in the State for the week ending June 8 was as follows:

| Pool— | Week ending June 8 | Previous week |
|---|---|---|
| Hollow | 6,310 | 8,260 |
| Ritz-Canton | 18,075 | 18,250 |
| Voshell | 5,680 | 5,575 |
| Bedgwick County | 10,180 | 10,445 |
| Mabee (Nikkel) | 8,960 | 6,010 |
| Ellsworth County | 1,995 | 1,775 |
| Barton County | 670 | 700 |
| Rice County | 3,075 | 3,400 |
| Reno County | 1,210 | 1,435 |
| Stafford County | 190 | 200 |
| Total | 55,445 | 56,350 |
| Others | 51,000 | 51,450 |
| | 106,445 | 107,500 |

### State Line Pool's New Well

Another well was completed in the State Line Pool of Sumner County, Kansas. It was the Gypsy Oil Co.'s No. 3 Anderud, NE cor. SE Section 17-35-3w. It is located just north of the Oklahoma line. It found the Viola lime at 4,756 feet and the 6-inch casing was landed and cemented at 4,760 feet. The dolomite was found at 4,762 feet, where oil rose 800 feet in the hole, in two days. At 4,763 feet the oil showing increased to 2,500 feet in four hours. The big pay was found in the Wilcox sand at 4,768-87 feet, where it flowed 30 bbls. of oil an hour by heads. The completion of this well will force offsets in Sections 17 and 18-20-3w, in Grant County, Oklahoma.

### In the Hollow Pool

The latest Wilcox sand well in the Hollow Pool is the east offset to the Wilcox sand discovery well in the pool. Skelly Oil Co.'s No. 3 Martens, SW cor. SE SE, Section 19-22-3w, made 1,434 bbls. of oil the first 24 hours from the Wilcox sand at 3,545-49 feet. It was averaging around 60 bbls. of oil an hour.

The Producers & Refiners Corp.'s No. 2 Martens, in Section 19-22-3w, the discovery well in the Wilcox sand in the Hollow Pool, was being put on the pump after it swabbed 68 bbls. in one hour and 55 bbls. the second hour at 3,508-14 feet.

These two wells indicate that the Hollow Pool will continue to be an important factor in the State's development during the balance of the year. Another pool that has yielded considerable oil from the Wilcox sand is the Voshell Pool in McPherson County.

The Hollow Pool has not been wholly defined. It has a chance to spread westerly, and as it has four producing horizons one or more of them may extend a considerable distance from the present producing limits.

The producers in the Hollow Pool are refusing to sell all their crude oil at the present market prices and the production curve which had started to show an increase is now declining.

### Activity in Hollow

The following wells are active in the Hollow Pool: The Texas Co. and others' No. 1 in Section 8-22-3w, in the north end of the field, flowed 780 bbls. of oil in 14 hours, through a 1-inch choke with 750 pounds back pressure on the well from the chat at a total depth of 3,206 feet. It later flowed 1,145 bbls. of oil in 24 hours through 1¼-inch choke with 650 pounds back pressure. The gas was estimated at 6,000,000 feet a day.

Sinclair Prairie Oil Co.'s No. 2 Neufeldt, in Section 18-22-3w, was drilling in the chat formation at 3,188 feet after finding the top at 3,142 feet.

Sinclair Prairie Oil Co.'s No. 1 Neufeldt, in Section 18-22-3w, found the Misener sand at 3,404 feet and the Hunton lime at 3,406 feet where it was landing and cementing the casing.

A new operation southwest of the main part of the pool was preparing to start. It was Nettler & Engler's No. 1 Balzer, in Section 36-22-4w, Reno County, which is just over the Harvey County line to the west. The test was rigging up preparatory to starting drilling operations after standing as a rig at the location for the last year.

Developments in Reno County include Olson Oil Co. and Shell Petroleum Corp.'s No. 1 Hutchinson Lumber Co., in Section 24-23-4w, found a showing of gas in the chat from 3,280-85 feet that was estimated at 100,000 feet a day. Casing was landed and cemented at 3,265 feet and it was drilling in chat at 3,317 feet.

Manning & Terry and others' No. 1 Goering, in Section 1-23-4w, was shut down waiting for cement at 3,234 feet in chat. The chat was found at 3,223 feet.

### In Ritz-Canton Field

In the Ritz-Canton Field, in McPherson County, Dickey and others' No. 1 Williams in Section 26-19-2w, cemented 5-inch casing at 3,370 feet. It is believed to be near the top of the Viola lime.

Rolind and Shell Petroleum Corp.'s No. 1 Just, in Section 26-19-2w, has landed the 8-inch casing at 2,225 feet.

Rosenthal and others' No. 1 Knudsen, in Section 23-19-2w, found oil in the chat at 3,379-80 feet. The oil rose 800 feet in the hole and it is expected the owners will give the chat an acid treatment. The 6-inch casing was landed and cemented at 3,378 feet.

Youker and others' No. 4 Gratton, in Section 24-19-2w, found a showing of gas in the chat at 2,940-50 feet, estimated at 750,000 feet a day. Oil was found at 2,915-75 feet, estimated at 250 bbls. a day, the total depth of the well being 3,002 feet with no increase in the oil showing.

Helmerich & Payne and others' No. 1 Russell, in Section 23-19-2w, found a showing of gas in a sand at 664 feet. It was drilling deeper.

Lario Oil & Gas Co. and others' No. 4 Gratton, in Section 24-19-2w, swabbed 5 bbls. of oil an hour from the Viola lime at a total depth of 3,400 feet. The top of the Viola lime was found at 3,388 feet.

Detrich and others' No. 1 Whital, in Section 29-19-1w, found gas in the chat formation at 2,922-28 feet that was estimated at 250,000 feet a day. It was drilled to a total depth of 2,928 feet where the casing will be cemented before drilling deeper.

In the south end of the Ritz-Canton Field, Tom Palmer and others' No. 2 Winn, in Section 7-20-1w, found oil at 3,401-11 feet. The oil rose 500 feet in the hole in four hours. It will be given a treatment of acid before making a production test. The total depth of the well is 3,418 feet.

In the Mabee Pool, in McPherson County, Mid-Kansas Oil & Gas Co.'s No. 3 Schmidt, in Section 33-21-3w, swabbed 480 bbls. of oil in 12 hours from the Hunton lime at a total depth of 3,545 feet.

### Barton County

Slick, Pryor & Lockhart's No. 1 Hogan, C SE NW Section 12-17-11w, was dry and abandoned at 3,500 feet.

### Butler County

Marylyn Oil Co.'s No. 1 Harsch, NE cor. SW Section 33-23-8, is a machine.

### Elk County

Anderson and others' No. 1 Smith, C SE SE Section 21-29-9, made 30 bbls. from 2,338-50 feet.

### Ellsworth County

Continental Oil Co.'s No. 1 Phelan, NE cor. NW Section 12-17-10w, made 90 bbls. from 3,243-98 feet.

### Greenwood County

R. H. Findliss' No. 1 Meyer, C SW SE Section 9-24-12, is a location. A. M. Landon's No. 2 Beaucht, CSL NE Section 5-24-12, was spudding. B. Young's No. 1 Smith, SW cor. NE Section 11-24-13, was dry and abandoned at 1,699 feet. Burt Loy and others' No. 1 Patterson, NE cor. NW NW Section 36-23-11, was dry and abandoned at 2,013 feet.

### Harvey County

W. C. McBride, Inc.'s No. 3 Schmidt, NW cor. NE NE Section 30-22-3w, is a rig. Continental Oil Co.'s No. 1 Pauls, NW cor. NE SW Section 17-22-3w, made 320 bbls. from 3,481-3,506 feet.

### Kingman County

Skelly Oil Co.'s No. 2 Miles, C S half S half NE Section 30-27-10w, made 315 bbls. from 3,425-31 feet.

### McPherson County

Mid-Kansas Oil & Gas Co.'s No. 3 Schmidt, SE cor. NE NE Section 33-21-3w, made 1,085 bbls. from 3,437-44 feet.

### Rice County

Phillips Petroleum Co.'s No. 3 Miller, C W half SE NE Section 3-21-6w, is a location.

### Russell County

Streeter and Stearns' No. 1 Benso, SE cor. SW Section 4-14-15w, is a location.

## Wildcat Operations in Kansas

(Descriptions are East unless marked otherwise)

**BARTON COUNTY**

| Company, farm and location— | Remarks: |
|---|---|
| Noble Drlg. Co.'s No. 1 Grant, SW SW Sec. 4-20-11w | T.D. 3,362 ft; P.B. to 3,335-35 ft. pumped 12 bbls. daily. |
| Rankin et al's No. 1 Scoog, C SW NE Sec. 24-18-12w | Drlg. 3,480 ft. |

**BUTLER COUNTY**

| | |
|---|---|
| Marylyn Oil Co.'s No. 1 Harsh, NE SW Sec. 33-27-8 | Machine. |

**COWLEY COUNTY**

| | |
|---|---|
| E. Yarnell's No. 1 Speer, SE NE NE Sec. 31-33-6 | Drlg. 600 ft. |

**ELK COUNTY**

| | |
|---|---|
| Austin et al's No. 1 Wade, C NE NE Sec. 9-29-13 | Drlg. 1,750 ft. |
| Anderson et al's No. 1 Smith, C NW SW Sec. 21-29-9 | Comp 50 bbls. 2,338-50 ft. |

**ELLSWORTH COUNTY**

| | |
|---|---|
| Rex Etnyre's No. 1 Arasman, C SW SW Sec. 10-15-7w | Rig. |

**GRAHAM COUNTY**

| | |
|---|---|
| Schleimeyer et al's No. 1 Smith, SE Sec. 24-8-25w | Fishing 4,180 ft. |

**GREENWOOD COUNTY**

| | |
|---|---|
| Chas. Reser et al's No. 1 Hull, NW SE Sec. 8-26-9 | Drlg. 1,775 ft. |
| Reser & Chriswell's No. 1 Wright, C SW SW Sec. 28-25-10 | Spudding. |
| Wright's No. 1 Madren, SW SE SW Sec. 29-22-13 | Machine. |

**KINGMAN COUNTY**

| | |
|---|---|
| Garden et al's No. 1 Unknown, Sec. 11-27-7w | Drlg. 1,300 ft. |

**McPHERSON COUNTY**

| | |
|---|---|
| Clum et al's No. 1 Nelson, C NE NW Sec. 12-18-4w | Drlg. 900 ft. |
| Sever and Hessman's No. 1 Scrag, S½ SE Sec. 22-19-4w | Rig on ground. |
| Gaume & Maxwell's No. 1 Goering, NE SE SW Sec. 24-22-3w | Rig. |
| Investers Mineral Dev. Co.'s No. 1 Kaufman, SE Sec. 25-21-3w | Rig. |
| Roth & Farout's No. 1 Swanson, NE SW NE Sec. 13-19-3w | Rig. |

**PRATT COUNTY**

| | |
|---|---|
| Ninnescah O. & G. Co.'s No. 1 Hardesty, SW SE SE Sec. 28-27-11w | Drlg. 4,415 ft. |

**RENO COUNTY**

| | |
|---|---|
| Roth & Farout's No. 1 Yoder, C NW NW Sec. 15-24-5w | C.O. 325 ft. |

**RICE COUNTY**

| | |
|---|---|
| Langston et al's No. 1 Wells, NE SE Sec. 4-20-9w | Drlg. 2,350 ft. |

**ROOKS COUNTY**

| | |
|---|---|
| Kruger's No. 1 Rathburn, SE NW SW Sec. 14-9-16w | Rig. |

**SALINE COUNTY**

| | |
|---|---|
| Dieter, Warren and Lario O. & G. Co.'s No. 1 Fulton, SW NW Sec. 14-16-3w | Drlg. 2,900 ft. |

**SUMNER COUNTY**

| | |
|---|---|
| Deal O. & G. Co.'s No. 1 Tompkins, SW cor. Sec. 26-33-1. | Fishing 3,690 ft. |

**WOODSON COUNTY**

| | |
|---|---|
| Ward McGinnis' No. 1 Ross, NW SE Sec. 32-25-14 | Drlg. 1,000 ft. |

### COMPLETING GASOLINE LINE

TOLEDO, Ohio, June 12. — Thacher Brothers Co. of Toledo has been awarded the contract by the Ohio Northern Pipe Line Co. to carry the 6-inch gasoline pipe line which the company has under construction between Toledo and Detroit across the lower Maumee River.

The pipe line will be carried below the new channel depth line of the proposed widening and deepening program which the Government proposes for Toledo at a cost of $3,000,000. Headquarters of the Ohio Northern Pipe Line Co., are in Monroe, Mich. The line is being constructed by the Pure Oil Co., the Sun Oil Co. and other interests.

# Two Louisiana Deep Tests, One in Claiborne and One in DeSoto Parish, Holding Attention

By D. H. BANCROFT
Staff Correspondent, Louisiana-Arkansas

SHREVEPORT, La., June 12.—Two deep tests, one in the Haynesville Field of Claiborne Parish, Louisiana, and the other a wildcat in DeSoto Parish, occupy the limelight in this territory. The Haynesville test, Haynesville Partnership's No. 1 Garrett, NW SW Section 24-23-8, on the north edge of Haynesville Townsite, topped the anhydrite at 3,940 feet, cemented 6⅝-inch at 4,140 feet and was drilling at 4,194 feet. The DeSoto wildcat, E. T. Oakes' No. 1 Bryant, SW NE Section 30-13-15, in the Longstreet area, reamed to bottom and was about to set casing at that depth to test 20 feet of sand showing for either a wet gasser or a gasser with some oil from the upper horizon of the lower Trinity. It is 1½ miles west of Senator L. V. Ullrey's No. 3 Ramsey, drilled in 1923 as the first deep test in North Louisiana. The Ullrey well had several gas shows on the way down but was abandoned as a dry hole at around 5,200 feet. The present well also has had several shows of gas, but none of them enough to make a well.

There were only six completions in the territory, all but one failures and that one a 40-bbl. pumper in Zwolle district of Sabine Parish, Baird Brothers' No. 3 Martinez, NW SW Section 2-7-13, which produced after a shot of acid at 2,484 feet. Including this one, there were seven completions in the territory, four in Louisiana, one in Arkansas and two in Mississippi. Acme Oil Co.'s No. 1 Long-Bell Lumber Co., SE SW Section 26-2n-10, Beauregard Parish, was dry at 2,107 feet and Trapp and Turnbow's No. 1 S. T. Roberts, NW NE Section 6-3n-10, Beauregard Parish, was dry and abandoned at the same depth. There is doubt, however, that either of these wells has been permanently abandoned as either one may be deepened.

United Gas Public Service Co. abandoned No. 1 Temple, Section 21-23-7, Claiborne Parish, 3 miles east of Haynesville, as a dry hole at 4,909 feet. In Sabine Parish, Zwolle, the most active part of the territory, the Baird Brothers well referred to was the only completion.

In Miller County, Arkansas, Stephens Byers & Sartan's No. 1 Jones, NE NW Section 14-16-27, was abandoned as a dry hole at 3,119 feet. United Gas Public Service Co. abandoned No. 1 Luce Packing Co., SW Section 25-15-6, George County, Mississippi, as a dry hole at 3,137 feet in sandy shale. In Sunflower County, Mississippi, Westbrook-Thompson Holding Co. abandoned the fourth of five tests on as many 5,000-acre blocks in the Delta country, No. 1 Rickette in the NW Section 26-23-4, as a dry hole at 3,500 feet in chalk.

### New Locations

There was a like small number of new locations in the territory, four in North Louisiana, two in Arkansas and two in Mississippi. Louisiana locations were S. P. Borden and others' No. 1 Pardee, SW NW Section 35-16-8, Bienville Parish, on a block on which it is proposed to drill three or four tests and in which it is rumored an unnamed major company is interested. Some of these, it is reported, will be shallow tests and the others deep holes. They will be in more or less virgin territory in the western north part of the parish just under the Webster Parish line. Most Bienville prospecting heretofore has been in the northeastern and southern parts of the parish.

Converse district of Sabine Parish had a new location when Joe Modisette drove stakes for No. 3 Frost-Johnson in NE SW Section 16-9-13, one-half mile north of his No. 2 on the same lease in Section 21-9-13, a dry hole, and his No. 1 Frost-Johnson, a producer, in Section 20-9-13. Pugh-Hickman Drilling Co. made location for No. 1 Woods, SW SW Section 30-8-12, Zwolle district of Sabine Parish. J. L. Pitts, who has drilled two or three dry tests in Winn Parish at shallow depths, is trying another with No. 1 Southern Advance Bag & Paper Co., NE NE Section 29-13-3w, Winn Parish. In his previous tests he has obtained showings of gas and oil but neither in sufficient quantities to make a well.

George W. Harper has derrick up for No. 1 Reed-Bodcaw, SW NW Section 10-15-22, Lafayette County, Arkansas, and C. H. Murphy and others of El Dorado, Ark., have made location for No. 1 Mann, SW SW Section 2-16-26, Miller County, 3 miles east of the four wells in the Texarkana area that have produced or are still producing. Love Petroleum Co. is rigging up to drill No. 1 fee, NW NE Section 1-5-1e, Rankin County side of the Jackson, Miss., gas field, and Kistler & Stivers are rigging up to drill No. 1 Blake estate in Section 15-17-5, Warren County, Mississippi.

### NORTH LOUISIANA

The block and well, No. 1 Haas, SW SW Section 9-1s-3e, Avoyelles Parish, assembled and started by Bud Harrell and others, has been taken over by Gary Prevenson and associates of Texas and Oklahoma, who will take it on to contract depth or deeper. Being another test in the Conroe-Jackson trend, it will be rather interesting to watch. For the same reason, George Greer and others' No. 1 Louisiana Central Lumber Co., Section 2-9-6, Catahoula Parish, reported preparing to run drill stem test at around 2,420 feet at which depth it was drilling on last report, is also an interesting operation.

In Beauregard Parish, Universal Oil Co.'s No. 1 Long-Bell Lumber Co. (formerly Beaver Petroleum Co.) in Section 34-2s-8, Beauregard Parish, topped the lime at 1,765 feet and was drilling at 3,038 feet. Sedberry and others' No. 1 Lawhon, Bienville Parish, topped the chalk at 1,645 feet and was drilling at 1,725 feet. H. I. Morgan's No. 2 Smith, Section 22-19-11, Bossier Parish, on the south flank of Bellevue dome, was drilling in red shale at 4,205 feet, one of the deepest wells structurally in the territory.

A. D. King, trustee, has made location for No. 1 Sallie Roach, SW SW Section 4-14-16, Caddo Parish, designed for a Trinity test to go 4,500 feet "unless." Location is on a block of several thousand acres in the extreme southwest corner of the parish, blocked solid by Andrew Currie of Shreveport after several months of effort and research which required much correspondence and several trips to interview heirs of the original owners living in nine northern states and Canada. The territory has been thoroughly gone over by geologists during the last several years, all of whom have made favorable reports. Location for the well is on a well defined "high" shown in the latest geological report, the one submitted by H. T. Dimick, of Shreveport, and is approximately 7 miles south of the southern limits of the Bethany-Panola gas field that straddles the Texas-Louisiana line 20 miles west of Shreveport.

### Humphreys to Drill Test

J. T. Humphreys has assembled 2,400 acres centering on Section 14-19-15, Caddo Parish, 3 miles northeast of Blanchard Townsite, for a 2,500-foot test. Several years ago several wells were drilled due east, north and northeast of Blanchard, all of which showed for commercial gas. The late D. C. Richardson of Shreveport was a believer in and developer of the territory.

M. H. Brogden and others' No. 1 Agurs, Section 2-20-16, in the original Oil City section of the Caddo Parish Field, tested salt water at 1,530 feet, but it was thought that they had a leaky casing. This particular part of North Louisiana's first oil field has been producing for 25 years and is still producing. Every once in a while a new stripper well is brought in making pipe line oil. In the Blanchard gas district of central west Caddo, Louana Oil & Gas Co. tested 3,000,000 feet of gas at 2,759 feet on No. 1 Winters, Section 4-18-16, and was to set tubing to make a well. Nelson Oil Co.'s No. 1 Taylor, SW SE Section 13-18-14, just north of Shreveport's municipal airport, was drilling at 2,730 feet. United Gas Public Service Co.'s No. 1 Holt got 15,000,000 feet of gas on drill stem test at 5,636 feet and was arranging to take a few feet more core before either being completed as a gas well or going deeper for hoped-for deep flush production which would bring about something of a return of boom days for this territory such as the Gulf Coast area of Louisiana and Texas is experiencing.

Daily average runs from the field for the territory as a whole showed a small increase, 285 bbls. Louisiana runs totaled 25,325 bbls. compared to 25,105 bbls. last week, an increase of 220 bbls., and Arkansas runs were 29,940 bbls., an increase of 65 bbls. Daily average runs from the several pools were:

| NORTH LOUISIANA | Bbls. |
|---|---|
| Caddo light | 4,800 |
| Caddo heavy | 1,540 |
| Cotton Valley | 515 |
| DeSoto-Red River | 1,600 |
| Elm Grove | 320 |
| Haynesville | 3,890 |
| Holly | 215 |
| Homer | 2,635 |
| Pleasant Hill | 340 |
| Sarepta-Carterville | 515 |
| Urania | 1,750 |
| Zwolle | 6,895 |
| Total | 25,325 |
| Last week | 25,105 |
| Increase | 220 |
| **ARKANSAS** | |
| Champagnolle | 1,350 |
| El Dorado | 2,600 |
| Lisbon | 430 |
| Miller County | 75 |
| Nevada County | 495 |
| Smackover light | 2,585 |
| Smackover heavy | 21,800 |
| Stephens | 150 |
| Urbana | 435 |
| Total | 29,940 |
| Last week | 29,875 |
| Increase | 65 |
| Both states | 55,265 |
| Last week | 54,980 |
| Increase | 285 |

## Wildcat Operations in Louisiana-Arkansas

**(Rotary operations unless otherwise designated)**

### North Louisiana

**AVOYELLES PARISH**

Company, well, farm name, section and block— Remarks:

Gary Patterson's (was Bud Harrell et al) No. 1 Haas, 330 ft. N and W, SE cor. SW SW Sec. 9-1s-3e ..... Derrick.

**BIENVILLE PARISH**

S. P. Borden's No. 1 Pardee, 550 ft. W, 250 ft. N, SE cor. SW NW Sec. 35-16-8 ..... Began drlg. May 31; cmtd. 10-in. csg. 120 ft.

**BOSSIER PARISH**

Cryer Oil Co.'s No. 1 fee, 2,400 ft. N, 1,980 ft. E, SW cor. Sec. 25-19-12 ..... Cmtd. 6-in. csg. 852 ft; drilled plug; W.O.

A. W. Phillips, tr.'s No. 1 Oden, 300 ft. W, 150 ft. N, SE cor. NW NW Sec. 4-18-12 ..... Set 6-in. with packer 1,807 ft.; bailed dry 1,714 ft; pulling csg.

B. A. Sherrell, tr.'s No. 1 fee, NE NW NW Sec. 18-19-11.. Derrick.

**CADDO PARISH**

Nelson Oil Corp.'s No. 1 Taylor, 200 ft. N, 200 ft. E, SW cor. Sec. 13-18-14 ..... Drlg. 2,730 ft.

**CLAIBORNE PARISH**

United Gas Public Service Co.'s No. 1 Meadows, approximately 100 ft. S, center E½ E½ Sec. 13-21-5.. Drlg. 5,808 ft.

**DE SOTO PARISH**

Bailey Gantz et al's No. 1 Jenkins, NW cor. SE SW Sec. 35-13-12 ..... Cmtd. 6⅝-in. 2,900 ft; T.D. 3,069 ft.

Mrs. A. L. Ibach, tr.'s No. 1 Rambin, 350 ft. S and E, NW cor. NE NE Sec. 32-11-11 ..... W.O. 3,527 ft.

**RAPIDES PARISH**

Evers & Collingsworth's (was A. G. Beck et al's) No. 1 Hickman-Simmons Lbr. Co., 330 ft. S, 330 ft E, NW cor. Sec. 40-4-1e ..... Drlg. 1,625 ft.

**RED RIVER PARISH**

Edward & Clay's No. 1 Delta Pecan Co., 1,800 ft. N, 450 ft. E, SW cor. Sec. 37-13-11 ..... W.O.S.R. 2,470 ft.

**SABINE PARISH**

R. T. Henderson's No. 1 Sistrunk, 450 ft. N, 150 ft. W, C, Sec. 9-9-13 ..... Showed oil, bailed dry, 2,079 ft.; S.D.

C. D. Loe, tr.'s No. 1 Whitney, 330 ft. N and W, SE cor. NW NE Sec. 19-9-14 ..... Base chalk 2,107 ft; S.D.; W.O. 2,205 ft.

(Continued on Page 64)

### No. 1 Meadows Still Making Hole

United Gas Public Service Co., which abandoned No. 1 Temple, 3 miles east of Haynesville, Claiborne Parish, as referred to, is still making hole on No. 1 Meadows, Section 13-21-5, same parish, "the Lisbon well" as it is better known, and after a drill stem test at 5,747 feet which developed 650 feet of salt water and 275 feet of drilling mud in seven minutes, was drilling at 5,808 feet. Baily Gantz' No. 1 Jenkins, SE SW Section 35-13-12, DeSoto Parish, cemented 6⅝-inch at 2,900 feet, total depth 3,069 feet. Jack Whitson's No. 2 Sanders, SW SW

(Continued on Page 58)

# New Wildcat Starts Another Spurt at Tomball; Potential Tests Holding Interest at Conroe

By NEIL WILLIAMS
Staff Correspondent, Gulf Coast Fields

HOUSTON, Tex., June 12.—Northern Harris County, where in the Tomball-Huffsmith area there took place for several months one of the most sensational wildcat lease and royalty plays on record, is in the midst of a new spurt in trading as a result of the wildcat being drilled by H. H. Sloan in the Peden tract, John Brock Survey, checking high. This test, which is approximately 2½ miles southeast of the old Indian Hill Oil Co.'s No. 1 Schweinle, William White Survey, the original test of the play, and which normally should run approximately 200 feet lower by dip, turned out only 27 feet lower in comparative sub-sea Hockleyensis depths. It also is substantially higher than Mills Bennett Production Co.'s No. 1 Klepple, March Survey, a dry hole drilled 3 miles southwest of the Indian Hill test and more than 3 miles west of the Sloan wildcat.

It was the showing of gas encountered in the Indian Hill test in the Cockfield at 5,514-80 feet which proved the incentive for the active play which spread across northern Harris County and southern Montgomery County, but with the failure of Mills Bennett's deep test, interest died out in this area and shifted farther west to the immediate Tomball vicinity, where recently Magnolia Petroleum Co. and Humble Oil & Refining Co. proved production in their joint No. 1 Kobs, J. M. Hooper Survey.

The Sloan test is approximately 10 miles east of the Magnolia-Humble discovery and evidently cut off from it as a result of Mills Bennett's dry hole in the March Survey. Interest has shifted back to that particular area with indications, as shown by the Sloan test, of another "high" extending to the north and east. Trading now is extremely active in that direction with prices late in the week running $50 an acre. Bottom of the hole in the Sloan test is around 5,050 feet, where, as this is written, drilling is temporarily shut down. With only 400 or 500 feet to go to pick up the pay horizon, particular importance is attached to this test.

### Progress at Tomball

There have been no new developments in the Tomball district itself. The discovery well continues to produce pinched in to the minimum because of limited facilities for handling the oil. Humble Pipe Line Co. is rushing work on laying a 10-inch line from the well to a connection with its Conroe-Satsuma branch. This line will be 13 miles long. Humble has purchased a site 3 miles south of Tomball where two 55,000-bbl. tanks will be constructed immediately. Magnolia Pipe Line Co. also is considering laying of a line to Conroe where a connection will be made with its trunk line to Beaumont. Magnolia's line runs right through the Conroe Field, but no connections ever have been made there.

No additional locations have been reported for Tomball although companies are making preliminary preparations for an extensive development program and at least 15 rigs probably will be called for within 30 days. Magnolia and Humble have started drilling in two more tests, their joint No. 1 Rudel, in the Joseph House Survey, and their No. 1 Fritz Kobs in the J. N. Hooper Survey. The former is being put down with a Magnolia rig and crew and the latter by Humble as both companies will operate simultaneously on their joint block. Their No. 1 G. W. H. Martens in the W. Hurd Survey about a mile west of the discovery well, and to be drilled by Humble, is rigged up and ready to spud. Although generally given up as a dry hole, these companies' No. 1 Martens, Joseph House Survey, 3 miles northeast of the discovery well, continues to make hole and at latest report was drilling in shale around 6,900 feet. This test found salt water in the 5,500-foot pay horizon.

### At Livingston

At Livingston, in southern Polk County, Dick Schwab's No. 1 Craig late in the week was flowing at the rate of a little more than 25 bbls. per hour through a half-inch choke on the tubing after deepening 9 feet from its former completed depth of 4,328 feet. The initial flow at the new depth of 4,337 feet was 42 bbls. per hour. The test, the second "black" oil producer in the field and a north offset to Shell Petroleum Corp.'s No. 1 Holmes-Davis, originally was completed June 4 with 30 feet of 5-inch screen set at 4,328 feet. There it flowed 33 bbls. in the first hour but soon dropped off and in an effort to improve it operators went into the hole again, drilled out the back pressure valve with a diamond bit on the tubing and drilling to the present depth, going through 2 feet of shale and then back into sand. The test was brought in again with the 9 feet of open hole and with the bit still in the hole. Gravity of the oil is 39.3 degrees (corrected). The well is showing a pressure of 300 pounds on the tubing and 700 pounds on the casing.

Kirby Petroleum Co.'s No. 1 Kirby Lumber Co. fee, a wildcat in the James Stephenson Survey, 10 miles southeast of the Livingston Field, which has been watched for possible extension or important bearing on the extent of the Livingston Field, has been found to be running about normal. It topped the Hockleyensis at a reported depth of 4,319 feet. It now is drilling below 4,400 feet.

### Conroe

Interest at Conroe still is centered on potential tests which are getting under way. Engineers of the Railroad Commission still are having a little difficulty in selection of satisfactory key wells although a list of 54 tentative wells has been made. The tests will be made through a quarter-inch choke.

With few exceptions completions at Conroe within recent weeks have been of a routine nature with drilling development falling off, confined chiefly to proven inside acreage. Among completions the past week, however, was Strake Petroleum, Inc.'s No. 1 Hamman, C. B. Stewart Survey, an east offset to the same operator's No. 1 Schaffer, which recently was completed as a mile westward extension to the field. The Hamman well came in flowing 60 bbls. per hour through a quarter-inch choke from sand at an approximate depth of 5,100 feet.

### East Hackberry

Calcasieu Oil Co.'s No. 2 Hanszen, a semiwildcat on the northwest side of the East Hackberry Dome, Cameron Parish, Louisiana, was completed during the week flowing initially at the rate of 60 bbls. an hour through a half-inch choke from a sand at a total depth of 6,076 feet.

### At Buckeye

At Buckeye, Matagorda County, United North & South Development Co.'s No. 1 Stoddard, discovery well of that field and the deepest production on the coast, was brought back in during the week flowing 1,934 bbls. of fluid, 4 per cent b.s. and water, in the first 24 hours through a thirteen-sixteenths inch choke, with bottom of hole at 7,861 feet. This well originally was completed last September as a 2,500-bbl. well at 7,926 feet. After several months it started making considerable water and was killed and the hole sidetracked to the present depth. So far this company has not been able to make a well in its No. 1 Plotner (Unit 14) which is in the pay at a total depth of 7,840 feet. This test has been washing and bailing for a couple of weeks without much response.

### East Stratton Ridge

Amerada Petroleum Corp. and Rycade Oil Corp. are continuing development in their new field at East Stratton Ridge. Drilling already has been started in their No. 4 Seaburn, located 150 feet west of their discovery well, No. 3 Seaburn, and in a line with Nos. 3, 1 and 2, the latter two being dry holes. No. 3 Seaburn, the discovery well, which was completed several weeks ago, is being worked on again because of salt water encroachment. Before being killed to plug back it was flowing at the rate of 30 bbls. of fluid, 50 to 60 per cent water, per hour through a five-sixteenths inch choke. Bottom of the hole is 4,500 feet but this is being cemented back approximately 20 feet.

### Manvel Field

Alpha Petroleum Co. has abandoned its No. 1 Patterson, northwest extension test for the Manvel Field, Brazoria County, in a salt water sand at 5,570 feet. It now looks as though this field has been pretty well defined on the north and that the development will be confined to holdings of the Texas Co. to the south and west. The latter company now has three rigs running in the field. Its No. 1-B Belcher late in the week picked up a shale showing oil from 5,111-26 feet and is running 7-inch casing to test.

### Shepherd's Mott

Cockburn Oil Corp. has met with another bit of hard luck on its Shepherd's Mott prospect in Matagorda County, twisting off drill stem in its No. 5 Hawkins after going to a depth of 5,917 feet. The hole has been junked and abandoned, but another test will be drilled at once. This company has kept up consistent development at Shepherd's Mott in the face of repeated obstacles and handicaps.

### Liberty County

Two wildcats in Liberty County now are commanding attention, these being Yount Lee Oil Co.'s No. 1 E. W. Boyt, H.&T.C. Survey, Section 17, 3 miles east of the Hankamer Field in the southern part of the county, and Hamill Drilling Co.'s No. 1 McNair, William Harris Survey, east of the South Liberty Field. The former is setting up a new depth record for the coast, drilling late in the week around 9,300 feet. No showings or favorable indications have been encountered. The Hamill test is down 5,118 feet. This has been one of the fastest drilled holes on the coast, it having been spudded on May 23.

## Gulf Coast Fields and Wildcats

Week Ending June 10

**RACCOON BEND—AUSTIN COUNTY**

| Company, farm and location— | Remarks: |
|---|---|
| Goodnight and Donald Oil Co.'s No. 1 Deitrich, Thos. Bell Sur., 200 ft. SE Flannagan et al's No. 1 Deitrich | No report. |

**DAMON MOUND—BRAZORIA COUNTY**

| | |
|---|---|
| Sinclair Prairie Oil Co.'s No. 31-A Bryan, 155 ft. N, 45 deg. E of SW cor. of Blk. 31, Masterson Subd., and 140 ft. S, 45 deg. E, A. Darst Sur. | T.D. 7,586 ft; no report. |

**MANVEL—BRAZORIA COUNTY**

| | |
|---|---|
| Alpha Oil Co.'s No. 1 Patterson, H. N. Little Sur., 150 ft. out of S cor. of 10-ac. tract (Lot 40) | No report. |
| The Texas Co.'s No. 1-B Belcher, H. N. Little Sur., 300 ft. out of N cor. of "B" lease | T.D. 5,136 ft; top of sand showing oil 5,111 ft; running 7-in. csg. 5,105 ft. |
| The Texas Co.'s No. 2 Davis, 300 ft. out of S cor. Lot 42, H. N. Little Sur. | Rig. |
| The Texas Co.'s No. 3 Ewing, H. N. Little Sur., 350 ft. from E line, 400 ft. from S line of Lot 30 | Gumbo 1,190 ft; cmtd. 13⅜-in. csg. |

**BARBERS HILL—CHAMBERS COUNTY**

| | |
|---|---|
| Mills Bennett Prod. Co.'s No. 3-A "A" Wilburn (W.O.), Henry Griffith League | Rigging up to deepen 5,232 ft. |
| Humble O. & R. Co.'s No. 2 Kirby (W.O.), Henry Griffith League | Drlg. shale 4,453 ft. |
| Sinclair-Prairie Oil Co.'s No. 14 Wilbur (W.O.), Henry Griffith League | T.D. 4,206 ft; rig up to deepen. |
| Sun Oil Co.'s No. 16 Wilburn, Henry Griffith League, 150 ft. W of No. 14 and 50 ft. N of S line | Drlg. sand and shale 3,425 ft. |
| The Texas Co.'s No. 3 Wilburn (W.O.), Henry Griffith League | Drlg. shale and lime 4,680 ft. |
| Yount Lee Oil Co.'s No. 20 Chambers County, Wm. Bloodgood Sur., 350 ft. from NW line and 50 ft. from SW line of lease | T.D. 4,782 ft; trying to sidetrack 1,956 ft. |
| Yount Lee Oil Co.'s No. 21 Chambers County (W.O.), Wm. Bloodgood Sur. | Cutting out 7-in. csg. 2,015 ft; to sidetrack. |
| Yount Lee Oil Co.'s No. 22 Chambers County, Wm. Bloodgood Sur., 300 ft. from W line, 362½ ft. from N line of lease | Salt 3,236-2,522 ft; cmtd. to top of salt. |

**RABBS RIDGE—FORT BEND COUNTY**

| | |
|---|---|
| Cullen & West's No. 2 Whitmore, Samuel Kennedy Sur., 476 ft. W of No. 1 and 350 ft. N of S line | Drlg. shale and lime 2,820 ft. |
| Gulf Prod. Co.'s No. 3 Edwards & Riggins, Samuel Kennedy Sur., 1,302 ft. N along W line and 316 ft. E at right angles | Drlg. shale 5,197 ft. |
| Humble O. & R. Co.'s No. 16-A F. L. Booth, Samuel Kennedy Sur., 932 ft. E of No. 6 | Comp. 50 bbls. per hour; ⅝-in. choke, 5,300 ft. |

(Continued on Page 60)

# Mountain View Field Will Share the Spotlight With Huntington Beach During Summer

By L. P. STOCKMAN
Staff Correspondent, California Fields

LOS ANGELES, Calif., June 10.—Huntington Beach will probably share the spotlight with the Mountain View Field of Kern County before the summer ends as operators in the latter are not losing any time in starting development work. Five locations were staked at Mountain View last week and several additional sites are expected within 10 days. Barnsdall, which has acquired several hundred acres exceptionally well located, has staked four locations and will probably begin early work as most of the acreage is considered semiproved. The Mountain View Field is in the extreme southern end of the San Joaquin Basin in Kern County and approximately 15 miles southeast of Bakersfield. The oil is of a good quality. Dana Hogan's No. 1 Wharton, the only commercial producer finished, has an exceptionally low gas oil ratio and is flowing steadily at 1,040 bbls. per day.

Associated is believed to have encountered the high head water anticipated in No. 1 Williamson, a wildcat which it is drilling in the Lost Hills Field of Kern County in conjunction with the Richfield Oil Co. The water zone, encountered at 4,123 feet, was found a little deeper than expected, which may indicate that No. 1 Williamson is a little lower on the structure than some tests drilled during the past few years. Associated killed the flow of water with heavy mud and will probably resume drilling in a few days. It is the intention to drill through this high head water zone and land another string of casing before drilling into the Temblor, or Eocene.

Belridge Oil Co. has beaned back No. 63-27, a recent Temblor completion in the North Belridge Field of Kern County, and will effect a further reduction in compliance with the curtailment program. Continental Oil Co. is making good footage in No. 4 Result, a projected Tembler completion, but it will probably not be on production for 30 days as the company has another 700 feet to make. In the Devil's Den area, between Lost Hills and the South Dome of Kettleman Hills, Lincoln Petroleum Co. picked up the top of the Temblor at 1,415 feet but does not expect to test this formation as the objective is the underlying Eocene. This well may possibly show production in the Eocene, as Standard Oil Co.'s wildcat in the Devil's Den region, drilled a few years ago, pumped approximately 25 bbls. of light gravity oil per day on a preliminary test. In the Fruitvale Field of Kern County, Kernco Oil Co.'s No. 1 Mason has settled to steady production, pumping 140 bbls. per day, but is still cutting approximately 20 per cent. N. P. Gerard's No. 1 Schmidt, another recent completion in Fruitvale, is also cutting in excess of pipe line requirements as the output, flowing by heads at the rate of 110 bbls. per day, is cutting approximately 15 per cent.

### Seal Beach

Continental Oil Co. cemented a string of 9-inch casing in No. 14 Bixby, a former upper zone producer in the Seal Beach Field, and is expected to be tanking oil within 15 days. The company used a new type of casing, which, according to all reports, came up to expectations. In completing No. 14 Bixby, Continental landed 5,903 feet of grade D 9-inch O.D. 46-pound semiflush casing. This string of casing, equipped with special couplings which reduced the outside diameter of the pipe approximately three-quarters of an inch, as compared with standard couplings, was run in and cemented in approximately 12 hours. The threads on this casing are standard pipe threads but the threads on the casing and couplings are tapered. With the use of this special coupling, the 9-inch O.D. casing measures 9.22 inches around the couplings. This is the first string of semiflush casing which has been used in the completion of any well up to the present time. Standard has two strings of similar tapered casing for use at Kettleman Hills, but Continental Oil Co. has the distinction of using the first string as neither of the former's two wells had reached the point where casing was required. Continental's No. 14 Bixby, a former upper zone producer, has been redrilled and deepened from the upper zone to the McGrath horizon at 6,535 feet. The well had 4,620 feet of 11¾-inch casing cemented at 4,620 feet, which, under ordinary conditions, would require a string of 8⅝-inch casing for the next water shutoff. By using this semiflush casing, the company was enabled to use a string of 9-inch which gave them the advantage of a little larger hole.

### Kettleman Hills

North Kettleman Oil & Gas Co. has been experiencing considerable difficulty in the completion of No. 1 Lillis-Welsh, outpost in the extreme western end of the Kettleman North Dome Field. A few weeks ago, while drilling at 10,943 feet, the drill pipe froze with a core barrel at the bottom of the hole. In a desperate attempt to regain circulation and effect a recovery, the company placed a shot of one quart of 100 per cent nitroglycerin at 10,924 feet but the pipe could not be worked loose. Another similar shot, designed to be exploded at the same point, went off prematurely at 9,658 feet and appears to have caused considerable difficulty. Failing to recover the 1,286 feet of 3-inch drill pipe, the company proceeded to conduct a production test in the belief that if the well could be induced to come in under a natural flow it might possibly loosen the fish and facilitate its removal. On the production test, the well came in flowing salt water testing 420 grains of salt per gallon. The appearance of salt water was somewhat disconcerting to Ed McAdams as there was no evidence of the existence of salt water in the hole previous to the conclusion of drilling. A recheck of operations during the past two weeks has revealed the possibility that the quart of nitroglycerin which went off prematurely exploded up in the casing above the shoe on the last water shutoff job. If such were the case, the presence of salt water in the hole can be adequately explained and probably overcome by a squeeze job. A water witch will be run in during the coming week in an effort to determine what did happen. Due to the low salinity of the salt water, field men are of opinion that the shot actually exploded above the shoe of the 7-inch, landed and cemented at 9,638 feet, and blew a hole in the casing just above this point. One of the most significant things in connection with the preliminary production test is that a slug of oil followed the salt water on the first swab from 4,000 feet in the afternoon of June 14. The presence of oil, even though small in quantity, was especially reassuring as it indicated possibility there was oil in the bottom of the hole below the shoe of the 7-inch water string which appears to be defective as the result of the premature explosion. The exact status of this well, the deepest hole drilled in the world, will not be definitely determined for another week or so. It is hoped the premature explosion occurred above the shoe of the 7-inch water string at 9,638 feet, because if that is the case there is still an excellent chance of correcting this mechanical defect.

In addition to the difficulties being experienced by North Kettleman Oil & Gas Co., there are three water problems confronting operators in the Kettleman North Dome Field at present. Two are in the Huffman area and one in the Felix area. In the latter instance Associated located water in No. 3 Whepley between 7,550-7,780 feet, which is several hundred feet below the shoe on the last water cement job at 7,107 feet, and has temporarily killed the well. In the Huffman area, the Standard apparently drilled into bottom water at 8,150-60 feet and is plugging back. Superior found water in No. 6 Huffman at 7,575-7,900 feet and another finger at 8,375-8,450 feet. In the latter instance this water trouble may be due to the complicated method in which No. 6 Huffman was completed. Superior ran a long combination string of liners consisting of perforated pipe and blank pipe alternately. Four separate liners consisting of perforated and then several stands of blank pipe were used in the completion of this well. Several production men ventured the opinion that Superior would not be able to get away with such a program due to high pressure conditions in the Kettleman North Dome Field and the probability that edgewater encroachment would be encountered. Their objection to such a program was on the belief that more care must be exercised in the selection of productive formation in the Huffman area because a single water sand might easily cause considerable difficulty. These men maintain that each zone or zingle members within one zone must be produced separately out on the flanks and dips of the structure. Superior apparently endeavored to take in too much formation and unfortunately encountered an edgewater, which may perhaps have fingered in at this point. Despite this water problem in three wells, edgewater intrusion is not a definite menace at present. Even if edgewater is encountered around the edge of the field, operators may still be able to develop clean production in the underlying Eocene. North Dome Field operators are endeavoring to prevent abnormal edgewater encroachment by taking gas from the upper high pressure Elliott zone and reinjecting it into the Ochsner, or black oil, zone.

### Kettleman Middle Dome

Operators in the Kettleman Middle Dome have not yet completed final details of the plan to unitize drilling and production activities but have made such good progress an early agreement is anticipated. In the meantime all development work is being held in abeyance. Standard's discovery well, No. 6-29-V, has been pinched back to 410 bbls. of exceptionally clean 59.8 gravity oil and 8,500,000 feet of gas per day. Present production is absolutely clean.

The history of this well is rather interesting, not only because it was the first commercial producer in the Middle Dome, but because it required considerable skill and perseverance. It was given a preliminary production test June 3, 1932, at which time it produced 850 bbls. of oil and 325 bbls. of salt water on an open hole test between 7,513 feet, where 9-inch casing had been landed, and 8,385 feet, the bottom of the hole. The water showed a consistent increase during the next few days and the well bridged over June 7 and finally stopped flowing. The hole was cleaned out and a string of 7-inch casing was landed at 7,835 feet and cemented through perforations at 7,534 feet. Due to the persistent water trouble the well was recemented July 4, 1932, and cleaned out to bottom. The hole was then plugged back with 300 sacks of cement, but the drill pipe stuck and twisted off at 3,420 feet. The pipe was being gradually recovered until around the early part of October, 1932, when the job became complicated because of the loss of some wash pipe at 6,375 feet. While removing the drill pipe, sections of the 7-

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

| | May 27 | | May 20 | | | |
|---|---|---|---|---|---|---|
| | Total this week | Daily average | Total last week | Daily average | This year to date | Same time last year |
| Intercoastal-domestic— | | | | | | |
| Crude oil | ..... | ..... | ..... | ..... | 78,085 | ..... |
| Fuel oil | ..... | ..... | 72,225 | 10,318 | 663,669 | ..... |
| Diesel and gas oil | ..... | ..... | ..... | ..... | 1,085,064 | 116,890 |
| Gasoline | 289,777 | 41,397 | 116,894 | 16,699 | 3,452,305 | 2,865,517 |
| Kerosene | 5,978 | 854 | ..... | ..... | 417,054 | 103,895 |
| Foreign exports— | | | | | | |
| Crude oil | 140,459 | 20,065 | 273,089 | 39,001 | 3,053,460 | 3,884,254 |
| Fuel oil | 226,766 | 32,395 | 169,061 | 24,152 | 3,027,982 | 3,978,797 |
| Diesel and gas oil | 61,335 | 8,833 | 48,702 | 6,957 | 1,461,882 | 1,021,036 |
| Gasoline | 56,651 | 8,093 | 217,013 | 31,002 | 2,515,725 | 3,972,003 |
| Kerosene | ..... | ..... | 105,186 | 15,027 | 793,326 | 921,952 |
| Naphtha distillates | ..... | ..... | ..... | ..... | ..... | 75,425 |
| Coastwise-domestic— | | | | | | |
| Crude oil | 64,310 | 9,187 | 166,948 | 23,850 | 4,264,249 | 5,995,870 |
| Fuel oil | 187,003 | 26,715 | 80,894 | 11,556 | 4,079,778 | 5,545,739 |
| Diesel and gas oil | 91,444 | 13,063 | 2,095 | 285 | 647,246 | 635,149 |
| Gasoline | 145,450 | 20,779 | 164,713 | 23,530 | 4,977,682 | 6,819,217 |
| Kerosene | 7,881 | 1,126 | 1,014 | 145 | 90,079 | 75,475 |
| Naphtha distillates | ..... | ..... | ..... | ..... | 27,651 | ..... |

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

| | | | | | | |
|---|---|---|---|---|---|---|
| Intercoastal-domestic— | | | | | | |
| Diesel and gas oil | ..... | ..... | ..... | ..... | 280,531 | 151,220 |
| Gasoline | 12,175 | 1,739 | 117,365 | 16,766 | 500,966 | 368,230 |
| Kerosene | ..... | ..... | ..... | ..... | 482,430 | ..... |
| Lubricants | ..... | ..... | ..... | ..... | 16,400 | 15,824 |
| Foreign exports— | | | | | | |
| Crude oil | 97,850 | 13,979 | ..... | ..... | 755,497 | 635,420 |
| Fuel oil | 46,750 | 6,683 | ..... | ..... | 299,291 | 521,659 |
| Diesel and gas oil | ..... | ..... | ..... | ..... | 492,179 | 352,107 |
| Gasoline | 150,527 | 21,504 | ..... | ..... | 1,849,915 | 1,716,159 |
| Kerosene | 42,300 | 6,029 | ..... | ..... | 431,433 | 491,562 |
| Lubricants | 5,679 | 811 | ..... | ..... | 31,926 | 24,934 |
| Coastwise-domestic— | | | | | | |
| Fuel oil | ..... | ..... | 237,911 | 33,987 | 1,251,691 | 1,189,009 |
| Diesel and gas oil | ..... | ..... | 13,121 | 1,874 | 166,162 | 196,281 |
| Gasoline | 176,126 | 25,161 | 127,386 | 18,198 | 1,515,749 | 1,429,240 |
| Kerosene | ..... | ..... | ..... | ..... | 57,531 | 63,596 |
| Lubricants | ..... | ..... | ..... | ..... | 2,751 | ..... |

inch casing were cut off and removed from time to time. Further mechanical trouble developed in December, 1932, while washing over the fish, as the 5-¾-inch wash pipe twisted off leaving 47 feet in the hole with the top at 6,827 feet. The wash pipe was subsequently recovered only to be lost and recovered again.

Early in February, 1933, Standard tried to make another production test by packing off the lower part of the hole, but this attempt proved unsuccessful as salt water flowed between casings during the test. Due to the inability to remove entirely the 7-inch casing, the company decided in April, 1933, to run in a new string of 7-inch and set this string down on top of the original string which had been cut out and removed down to 6,953 feet. This was done and the hole cemented through perforations at 6,951 feet. The hole was then drilled out to 7,835 feet and the well completed as a commercial producer. Petroleum Securities pioneered development work in the Middle Dome Field and is generally credited with proving this structure, even though the company failed to get sustained commercial production. No. 1 Burbank of the Petroleum Securities came in flowing approximately 2,500 bbls. of oil and 1,500 bbls. of water on a production test, but the hole was subsequently junked in trying to remedy the water condition. No. 1 Burbank has been standing suspended for more than a year.

### Midway-Sunset

Standard Oil Co., after conducting a series of exhaustive production tests, has decided to abandon No. 1 Mascot, a deep test in the Midway-Sunset Field of Kern County, to 9,762 feet. This well proved somewhat of a disappointment as Standard believed it had encountered a sand sufficient to justify expectation of commercial production before drilling operations were temporarily suspended about three years ago. After remaining idle for approximately 18 months, Standard resumed drilling operations on No. 1 Mascot in July, 1932, but the well failed to result in the anticipated production. Drilling operations were resumed after the production test conducted in July, 1932, was negative and the hole carried to 9,762 feet. Before abandonment, the well was plugged back by stages and the casing perforated at frequent intervals to make sure nothing was overlooked. Honolulu Consolidated has been experiencing a difficulty in completing No. 54 in the Midway-Sunset and the perforations are being washed out to stimulate production. This well, in Section 8-32-24, was finished a week or so ago at 3,281 feet but failed to hold up. Honolulu spudded in No. 35, a new well, and the bit is at 1,110 feet. General Petroleum has started drilling operations on the Lovitt property on the McKittrick Front. The company is prospecting a structure independent from that embracing the McKittrick Field. In the Gould Hills district, Hub Petroleum Co. is approaching the 6,000-foot level in its wildcat in Section 22-29-21 and while this test is believed to have encountered the Temblor only minor showings have been logged up to the present. Drilling operations in the Mount Poso Field were more or less of a routine nature, although of slightly negative character. In the Round Mountain district, Howell Brothers are working on an outpost in Section 32-28-29, but this test at present is a little too shallow to show anything of particular importance.

### Coal Oil Point

The Coal Oil Point district of Santa Barbara County was definitely disproved as a new oil field this week when J. J. (Jack) Doyle's test on Bolsa Chica's tideland permit No. 191 was suspended at 4,144 feet, following an unsuccessful production test. Down to around the 3,100-foot level, Doyle's test was running 165 feet higher structurally than Bolsa Chica's original hole 400 feet south. A little below 3,100 feet, a fault was encountered in the Doyle project, which dropped the hole 300 feet stratigraphically. Drilling operations continued to 4,143 feet but this unfavorable condition resulted in a decision to suspend work and possibly abandon the well. No further drilling is expected to be done on the tideland permit at Coal Oil Point as the time limit expires in a few weeks. This fault displacement is especially interesting in view of the fact that General Petroleum encountered a similar condition on the More Ranch in the Goleta gas field. This company encountered two similar faults in its initial test at Goleta, each of which dropped the hole approximately 300 feet. General Petroleum continued drilling operations, however, and was ultimately rewarded by discovering a commercial dry gas field. It will be recalled that General Petroleum had quite a problem in filling a cavity in No. 1 More when drilling through the fault and was successful only after the hole had been filled with manure secured from various stables in the vicinity. Standard Oil Co. has started drilling operations on the Chase & Bryce property adjoining General Petroleum's More ranch and will attempt to develop commercial gas production similar to that found by General Petroleum, a Socony-Vacuum subsidiary.

If Doyle and associates had developed commercial production in their Coal Oil Point test, they would have been the first operators in California to discover a new field by tideland development. Portions of several California fields, Elwood, Summerland, Rincon, Playa Del Rey and Huntington Beach, are known to extend out into the open ocean, but the discovery well in each of these areas was located on dry land inside the tide line. In the case of Summerland, Elwood and Rincon, drilling operations following completion of the discovery well subsequently led to tideland development with satisfactory results.

The Summerland Field was for a long time the only district in California where crude oil was produced beneath the waters of the Pacific Ocean but this distinction was subsequently shared with the Elwood Field and the Rincon Field. Although the first record of commercial production in the Summerland Field was recorded during 1894, several wells were drilled between 1886 and this date, from which a small production was developed. Nearly all of the early wells drilled in the Summerland Field were on leases north of the railroad tracks but with developments it was discovered that the dip of the sand beds was to the south and toward the ocean. Development work soon carried operators across the railroad tracks, then to the beach and finally into the ocean. The longest wharf, 1,230 feet in length, was that of the Southern Pacific Railroad and the wells farthest out were nearly as productive as those nearer the shore. The wharves, which were not very substantially constructed, suffered severely during the winter and the ocean tides have long since destroyed most of them and snapped off the well casings, allowing ocean water to enter the hole and flood out the field.

### Elwood

Barnsdall and Rio Grande were co-discoverers of the Elwood Field of Santa Barbara County and, in addition to several tideland permits, have leases on the Luton Bell and Doty ranches inside the shore line. The discovery well, No. 1 Luton Bell, was finished in July, 1928, flowing 1,850 bbls. of clean 38.7 gravity oil per day from 3,208 feet. The Elwood Field, with approximately half of the productive acreage located on tideland permits beyond the tide line, had produced 42,531,685 bbls. of crude up to May 1, 1933. All crude oil production to date has been recovered from the Vaqueros, but this field will again become of importance at some future date as the underlying Sespe has not yet been developed.

Barnsdall and Rio Grande have definitely proved the Sespe as highly productive, as No. 14 Luton Bell showed a potentiality of 2,500 bbls. per day before being shut in as a conservation measure. Two wells are being drilled in the Elwood Field, both being on tideland drilling permits. Bankline Oil Co. is rotating in No. 10 on tideland permit No. 89 at 2,480 feet, while Caroline Spalding is drilling at 1,550 feet in No. 7 on State perimt No. 93. The Rincon Field of Ventura County was discovered by Chanslor-Canfield Midway Oil Co. in 1,927 and, like Summerland and Elwood, development work subsequent to completion of the discovery well ultimately led to tideland drilling with fairly satisfactory results. With one exception, Indian Petroleum's No. 1 on Shudde tideland permit No. 82 in the Rincon Field, all tideland development has been done by constructing long piers, or wharves out into the open ocean. Indian Petroleum Co., instead of constructing a long expensive pier, erected a steel island which has no connection with the shore line.

### San Miguelito

Honolulu Consolidated Oil Co.'s No. 1 Valenzuela in the San Miguelito Field is getting quite deep and must pick up the Grubb zone in the very near future if commercial production is to be expected. This well failed to log the upper Grubb zone but still has a chance of getting the lower Grubb horizon in which Continental finished No. 1 Grubb flowing 1,750 bbls. of clean 31.3 gravity oil per day from 7,152 feet. No. 2 Grubb, about midway between Continental's No. 1 Grubb and No. 1 Valenzuela of the Honolulu, appears to be correlating about 50 feet lower stratigraphically than the discovery well and therefore is expected to be finished as a commercial producer. Chanslor-Canfield Midway Oil Co. is making unusually slow progress with No. 3-A Hobson as the bit has not yet passed the 4,000-foot level. In the Santa Barbara Mesa Field, Fred Cole's No. 1 Knott has settled down to a steady pumper doing 220 bbls. of 19.1 gravity oil per day from 2,170 feet. The next producer expected to be finished in this field is R. H. McIntosh's No. 1 Clark, which topped the oil sand at 2,067 feet a few days ago. Gen-

(Continued on Page 78)

IMPORTANT SOUTHERN CALIFORNIA WILDCATS

| Company, well and location— | S.T.R. | Depth | Status: |
|---|---|---|---|
| Palm Ridge Oil Co., No. 1 Palms, Los Angeles Co. | 2- 2-13 | 5,350 | suspended |
| Baldwin Oil Co., No. 9 Inglewood, Los Angeles Co. | 7- 2-14 | 5,863 | suspended |
| Kupfer, A. M., No. 1 Inglewood, Los Angeles Co. | 17- 2-14 | 5,853 | plug bottom |
| Pacific Gulf, No. 1 Athens, Los Angeles Co. | 19- 3-13 | 6,094 | suspended |
| Pacific Oil Inv. Co., No. 1 Wilmington, Los Angeles Co. | 28- 4-13 | 3,640 | prod. test |
| Wilmington Oil Co., No. 1 Wilmington, Los Angeles Co. | 28- 4-13 | 3,646 | prod. test |
| Sunrise Pet. Co., No. 1 Dominguez, Los Angeles Co. | 3- 4-13 | mtl. | building rig |
| Peoples O. & G. Co., No. 1 Compton, Los Angeles Co. | 31- 3-12 | rig | rigged up |
| Oakes & Mead, No. 1 Lyndwood, Los Angeles Co. | 31- 2-13 | 4,940 | suspended |
| Texas Co., No. 1 Pico, Los Angeles Co. | 13- 2-12 | rig | rigging up |
| Community Oil Co., No. 1 Montebello, Los Angeles Co. | 34- 1-11 | 5,200 | suspended |
| Universal Consd., No. 1 Montebello, Los Angeles Co. | 5- 2-11 | 6,171 | br. sh. drilling |
| Andrus & Hutcheson, No. 1 El Monte, Los Angeles Co. | 11- 1-11 | 1,792 | suspended |
| Willetts Pet., No. 1 Saugus, Los Angeles Co. | 35- 5-16 | 2,074 | suspended |
| Smith, J. A., No. 1 Saugus, Los Angeles Co. | 32- 5-17 | 3,515 | suspended |
| Alpha Oil Co., No. 1 Calabasas, Los Angeles Co. | 22- 1-18 | 1,199 | suspended |
| Hudson Pet., No. 1 Newhall, Los Angeles Co. | 1- 3-16 | 1,565 | prod. test |
| Ball, W. T., No. 1 Newhall, Los Angeles Co. | 34- 3-16 | 3,582 | suspended |
| Big Four Oil Co., No. 1 Newhall, Los Angeles Co. | 32- 4-16 | 2,230 | suspended |
| Marble, Willard, No. 1 Van Nuys, Los Angeles Co. | 6- 2-16 | 2,000 | suspended |
| Nuoil Co., No. 1 Newport, Orange Co. | 29- 6-10 | 3,901 | suspended |
| Mineral Exploration, No. 1 Capistrano, Orange Co. | 8- 8- 7 | 4,302 | suspended |
| Saddleback Oil Co., No. 1 El Tora, Orange Co. | 3- 6- 7 | rig | suspended |
| Placentia Dev. Co., No. 1 Placentia, Orange Co. | 31- 3- 9 | rig | rigged up |
| Spindletop Oil Co., No. 1 Salton Sea, Riverside Co. | 35- 7-10 | 3,590 | suspended |
| Keeley, H. J., No. 1 Corona, Riverside Co. | 21- 4- 6 | 704 | suspended |
| Duncan, N. L., No. 1 Sagebrush, Riverside Co. | 8- 4- 6 | 1,167 | suspended |
| Great American Pet., No. 1 Chino, San Bernardino Co. | 18- 2- 8 | 2,280 | hd. sd. drilling |
| Great American Pet., No. 2 Chino, San Bernardino Co. | 18- 2- 8 | 78 | sd. drilling |
| McCarthy, C. F., No. 1 Chino, San Bernardino Co. | 14- 2- 6 | 102 | sd. drilling |
| Mason Oil Co., No. 1 Salton Sea, Imperial Co. | 1-17-15 | 680 | suspended |

IMPORTANT NORTHERN CALIFORNIA WILDCATS

| Company, well and location— | S.T.R. | Depth | Status: |
|---|---|---|---|
| Fairview Oil Co., No. 1-A Purisima, Santa Barbara Co. | 18- 7-34 | 1,694 | suspended |
| Standard Oil Co., No. 1 Goleta, Santa Barbara Co. | 20- 4-28 | 107 | rathole |
| Duell, O. S., No. 1 Naples, Santa Barbara Co. | 7- 4-29 | 5,132 | suspended |
| Equity Oil Co., No. 1 Coal Oil Point, Santa Barbara Co. | 24- 4-29 | 3,750 | suspended |
| Bolsa Chica, No. 1 Coal Oil Point, Santa Barbara Co. | tideland | 4,080 | suspended |
| Bolsa Chica, No. 2 Coal Oil Point, Santa Barbara Co. | tideland | 4,143 | suspended |
| Cuyama Oil Co., No. 1 Cuyama, Santa Barbara Co. | 12-10-27 | 2,387 | suspended |
| Woodrow Pet., No. 1 Rincon, Ventura Co. | 4- 3-24 | 7,292 | prod. test |
| Indian Pet., No. 1 Rincon, Ventura Co. | tideland | 3,484 | prod. test |
| Bardeen Pet., No. 1 Fillmore, Ventura Co. | 13- 4-19 | 2,750 | cleaning out |
| Hancock Oil Co., No. 1 Fillmore, Ventura Co. | 13- 4-19 | 1,232 | sd. sh. drilling |
| Kneiper & Atha, No. 1 Bardsdale, Ventura Co. | 7- 3-19 | .... | rig portable |
| Honolulu Consolidated, No. 1 Miguelito, Ventura Co. | 23- 3-24 | 6,560 | hd. sh. drilling |
| Continental, No. 2 Miguelito, Ventura Co. | 23- 3-24 | 6,292 | sd. sh. drilling |
| C. C. M. O., No. 3-A Miguelito, Ventura Co. | 23- 3-24 | 3,701 | hd. sd. drilling |
| Midlands Pet., No. 1 Ojai, Ventura Co. | 9- 3-23 | 7,250 | gr. sh. drilling |
| Struve, R. E., No. 1 Ojai, Ventura Co. | 12- 4-22 | .... | location |
| Wilshire Oil Co., No. 1 Sulphur Mountain, Ventura Co. | 20- 4-21 | 1,863 | redrilling |
| Mosher, J. W., No. 1 Santa Paula, Ventura Co. | 22- 4-21 | 1,240 | gr. sd. drilling |
| Petro Producing Co., No. 1 Timber Canyon, Ventura Co. | 15- 4-20 | 4,640 | hd. sd. drilling |
| Las Posas Pet., No. 1 Las Posas, Ventura Co. | 22- 3-20 | 3,979 | suspended |
| Wilshire Oil Co., No. 1 Bardsdale, Ventura Co. | 12- 3-20 | 1,732 | suspended |
| International Oil Developers, No. 1 Conejo, Ventura Co. | 33- 2-20 | 2,770 | cleaning out |
| Anderson, C. L., No. 1 Santa Susana, Ventura Co. | 36- 3-18 | 1,471 | pump 25 B/D |
| Hub Pet. Co., No. 1 Gould Hills, Kern Co. | 22-29-21 | 5,970 | gr. sd. drilling |
| Purman, T. H., No. 2 Gould Hills, Kern Co. | 27-29-21 | 235 | suspended |
| General Pet., No. 1 McKittrick, Kern Co. | 10-30-21 | 972 | sd. sh. drilling |
| Casa Mira Oil Co., No. 1 Belridge, Kern Co. | 29-28-20 | 2,460 | br. sh. drilling |
| General Pet., No. 1 Belridge, Kern Co. | 30-28-21 | 5,260 | suspended |
| Milham Exploration Co., No. 24 Buttonwillow, Kern Co. | 5-28-23 | 2,625 | suspended |
| Cumberland Oil Co., No. 2 Devils Den, Kern Co. | 17-26-18 | 3,270 | suspended |
| Holloway, A. S., No. 1 Devils Den, Kern Co. | 11-25-18 | 1,848 | suspended |
| Lincoln Pet., No. 1 Devils Den, Kern Co. | 10-25-18 | 1,451 | gr. sd. drilling |
| Hanna, Tom, No. 1 Devils Den, Kern Co. | 25-25-18 | 3,516 | suspended |
| Pyramid Hills Oil Co., No. 1 Devils Den, Kern Co. | 24-25-18 | 3,926 | br. sh. drilling |
| Fowler, F., No. 1 Blackwell Corner, Kern Co. | 15-26-19 | 3,170 | suspended |
| Rio Cal Pet., No. 1 Shale Hills, Kern Co. | 2-27-18 | 2,355 | suspended |
| Associated, No. 1 Lost Hills, Kern Co. | 2-26-30 | 4,123 | wtr. trouble |
| Caravel Pet. Co., No. 1 Edison, Kern Co. | 19-30-30 | 1,801 | sd. sh. drilling |
| Bankline Oil Co., No. 1 Mountain View, Kern Co. | 4-31-29 | .... | location |
| Barnsdall Oil Co., No. 1 Mountain View, Kern Co. | 31-30-29 | .... | location |
| Barnsdall Oil Co., No. 2 Mountain View, Kern Co. | 32-30-29 | .... | location |
| Descanso Oil Co., No. 1 Wheeler Ridge, Kern Co. | 31-11-19 | 2,620 | suspended |
| Gatton & Luethe, No. 1 Madera, Madera Co. | 22-10-17 | 2,390 | sd. sh. drilling |
| Bergman, Harry, No. 1 Kingsbury, Fresno Co. | 12-12-11 | 4,023 | suspended |
| Graham & Loftus, No. 1 Raisin City, Fresno Co. | 20-15-18 | 5,670 | sd. sh. drilling |
| Emerich Oil Co., No. 1 Mendota, Fresno Co. | 35-13-13 | 2,802 | sd. sh. drilling |
| Hogan, Dana, No. 1 Joaquin Ridge, Fresno Co. | 28-20-16 | 1,190 | sd. sh. drilling |
| Kent & McDonald, No. 1 Carrizo Plains, San Luis Obispo | 3-32-22 | 3,830 | suspended |
| Paso Robles Oil Co., No. 1 Edna, San Luis Obispo Co. | 27-27-11 | 4,191 | suspended |
| Guess, E. B., No. 1 Corcoran, Kings Co. | 7-21-21 | 6,197 | suspended |
| Brown, A. M., No. 1 Cloud, Kings Co. | 16-22-19 | 1,295 | recemented |
| Dudley Dome Oil Co., No. 1 Dudley Ridge, Kings Co. | 9-23-20 | 3,012 | suspended |
| Knudsen & Schmidt, No. 1 Reef Ridge, Kings Co. | 26-23-17 | 6,873 | suspended |
| Kettleman Ridge Oil Co., No. 1 Avenal, Kings Co. | 10-23-16 | 312 | suspended |
| Magee & Stone, No. 2 Alpaugh, Kings Co. | 33-24-22 | 3,112 | bl. sh. drilling |
| Dil-Harper Oil Co., No. 1 Delano, Tulare Co. | 25-24-26 | 1,210 | cleaning out |
| Na-Pa Oil Co., No. 1 Griffith, Napa Co. | 7- 8- 3 | 3,740 | br. sh. drilling |
| Oakdale Oil Co., No. 1 Oakdale, Stanislaus Co. | 5- 3-10 | 4,815 | hd. sh. drilling |
| Rushing Oil Co., No. 1 Waterford, Stanislaus Co. | 20- 3-12 | 2,631 | suspended |
| Pacific Northern Oil Co., No. 1 Guinda, Yolo Co. | 32-12- 3 | 3,420 | br. sd. drilling |
| Buttes Oilfields Co., No. 1 Marysville, Sutter Co. | 35-16- 1 | 2,731 | gas—shut in |
| Buttes Oilfields Co., No. 2 Marysville, Sutter Co. | 34-16- 1 | 1,160 | sd. sh. drilling |
| Tehama Pet. Co., well No. 1, Glenn Co. | 4-22- 5 | 4,460 | gr. sh. drilling |
| Orland Synd., No. 1 Orland, Tehama Co. | 31-23- 3 | 3,748 | suspended |
| Harker Drlg. Co., No. 1 Orland, Tehama Co. | 21-25- 5 | 3,030 | suspended |

# Marts & Beavens Well in Southwestern Bastrop Is Expected to Open the Serpentine Pool

By B. D. STEVENSON
Staff Correspondent, Southwest Texas Fields

SAN ANTONIO, Tex., June 12.—Marts & Beavens were on the verge of opening a new Serpentine pool in southwestern Bastrop County at the close of the week, their No. 2 Reyes, north of the Yost Pool, having cored 2 feet into Serpentine at 1,695-97 feet with a good showing of oil and was preparing to set casing without making a drill stem test.

The firm's No. 1 Reyes was drilled recently at 2,000 feet with quite a showing of oil in Serpentine, but did not make much of a well. It went into Serpentine at 1,705 feet and found it dry, but had a streak of Serpentine lower down that made a fair showing. It was located 750 feet from the west line and 150 feet from the south line of the Reyes 68-acre tract in the Addison Lytton League. The No. 2 Reyes is located 640 feet northeast of the No. 1 Reyes. This and other Serpentine plugs in that part of the country are the result of use of the magnetometer.

Following the completion a week ago of the Marts & Beavens No. 2 Riddle in the Riddle Pool in the southern part of Bastrop County, for 72 bbls. an hour, gauged, the biggest well by far completed in that pool, the Humble Oil & Refining Co. brought in the No. 3 Wilhelm in the Hilbig Pool for 100 bbls. an hour, the biggest in that field. Both are in Serpentine formation producing fields and with this success the Serpentine is made more popular. A new pool by Marts & Beavens would intensify the interest.

Humble's No. 3 Wilhelm topped the Serpentine at 2,445 feet and drilled to 2,607 feet. The rig was moved to the No. 4 which is not well started.

### Interest in Balcones Fault Divided

Interest this week in the Balcones fault district is divided between the prospects of a new Serpentine pool in Bastrop, the Paton Brothers No. 1-B Turner in northern Lee County on the Tanglewood fault and the C. W. Boller (O. N. Beer) No. 1 Kearney in southern Bexar County that has the Austin chalk at least 500 feet higher than the Linda Oil Co.'s No. 1 Watson a little to the northwest which was drilled last year.

Paton Brothers late in the week were around 6,300 feet and making hole in the No. 1-B Turner. It had a crevice in the chalk at 6,100 feet and a showing of oil and many are watching it closely.

Paton Brothers late in the week were calculated as having the top of the Georgetown at 6,287 feet and were said to have missed the Buda lime and Del Rio clay. This is the principal interesting feature about the test at this time. It is estimated that there will be about 250 feet of Georgetown. On Friday, the last depth available it was drilling at 6,375 feet and if estimates prove correct that it should go out of the Georgetown at 6,537 feet then it had only 162 feet more to drill to get into the Edwards line.

In Bexar County, C. W. Boller's No. 1 Kearney got the chalk at around 1,030 feet, and the Linda Oil Co.'s No. 1 Watson drilled a few hundred feet to the northwest at 1,546 feet was abandoned without getting the chalk. The No. 1 Kearney cut the fault plane at about 200 feet going out of the Wilcox into the Midway.

A further interesting item about the No. 1 Kearney is that at 1,170 feet it took a saturated core in the Austin chalk and if it should fail to make a well in the Edwards will plug back and try and make a producer in the Austin chalk. It has been showing considerable gas from formations above the chalk. A few days' drilling this week should carry it into the Edwards lime.

On the extreme southwestern end of the Balcones fault zone the Zavala Oil & Gas Co.'s No. 1 Gates in Zavala County has resumed drilling. It was shut down for several weeks at 5,508 feet because of lack of water which recent rains have supplied.

### Duval County Activity

Al Buchanan's No. 1 Foster, 150 feet from the north and west lines of the south half of Survey No. 270 and about 5 miles due north of the North Government Wells Pool, got the Cole sand at 1,461-78 feet and tested considerable oil and gas but mainly salt water. It drilled ahead and late in the week was preparing to core for the Government Wells sand. It seems to be running pretty favorable. It shut down Friday due to the absence of Mr. Buchanan and will start coring for the Government Wells as soon as he gets there.

As soon as this well is completed the rig will be moved to the Boysen & Hotchkin No. 1 Hagist in southern McMullen County, approximately 4 miles northeast of the Buchanan No. 1 Foster in Duval.

DeSoto Oil Co.'s (Coronado) No. 1 Wood-Welder, northeast of the North Government Wells Pool, which tested a little oil and gas at around 2,200 feet, went on down to 2,500 feet but is now plugging back and will make another attempt at making a well where it got the showing.

S.R.C. and Sinclair Prairie's No. 2 La Chusa went 2 feet into the Government Wells sand at 1,863-65 feet and got some salt water and shut down for repairs. It is located in McMullen several miles northeast of the North Government Wells Pool.

In northern Live Oak, 6 miles northwest of Three Rivers, a good many miles northeast of the Government Wells activity but somewhat along the same general Jackson trend activity the S.R.C. and Cohagen No. 1 Nichols got started the past week and topped the Jackson at 440 feet and was last reported drilling at 715 feet. It seemed to be starting off favorably.

### Laredo District Completions

Completions in the Laredo district were for the most part not particularly interesting. The Texas Co.'s No. 5 Wendt, in the North Government Wells Field, an inside location, came in at 2,254 feet for 66 bbls. an hour and the Texas Co.'s No. 28 Measles, in the Escobas Pool, came in at 1,215 feet for 50 bbls. daily.

Among the wildcat abandonments were the Whisenant & Trenchard No. 1 Duval County Ranch Co., in Survey No. 76 in Duval County, 4 miles west of the North Government Wells Pool. It is along a line of activity that has been attracting considerable interest of late. Total depth is 2,500 feet.

In Webb County, Edwin M. Jones will do some geological work before doing much drilling on his No. 2 Callaghan. The No. 1 was abandoned at 4,115 feet and plugged back and made into a water well for the ranch. The No. 2 location was made about 4 miles north and a little east of the No. 1, but this location is subject to further work by geologists and may be moved. Mr. Jones' operations in Webb are of more than ordinary interest due to the fact that the wildcatting is on one of the biggest known structures in Southwest Texas.

In the Saxet Field, Gulf Port abandoned its No. 3 Humphreys at 5,028 feet and this leaves the field with a minimum of activity. Three tests are shut down below 5,000 feet and another below 4,900 feet, all having failed to get production in the 4,800-foot sand which is the sand they were aiming at. Houston Oil Co. will make a well out of its No. 1 McGregor at 4,874 feet and when this is finished there will be no drilling activity in the field unless something new is started.

In the western part of the county, John F. Camp has started his No. 1 King and it will be of interest since in association with the Stanolind Oil & Gas Co. he drilled two gas wells a little to the west of his location, but producing from different sands, thus indicating some interesting possibilities. The pool is close to the west line of the county and north of the railroad and northwest of the Agua Dulce Field.

### Killam Setting Casing

O. W. Killam's No. 1 Seitz, near Anchorage in northwestern Atascosa County, is setting casing. It has a showing of oil at 3,630 feet and was to take one more core below that and then set casing. There was some Serpentine showing in the cores taken at 3,514 feet though this test is considerably removed south from the path of Serpentine plugs bordering the Balcones fault. Rio Bravo and some independent operators had encouraging showings of oil several years ago in tests drilled in that part of the county and at around about the same depth.

### Miscellaneous

D. R. Semmes is starting a test in the Moca Field in northwestern Webb County to be a north offset to the discovery well of the Moca Oil Co. Work on the construction of the pipe line from this field is to start at once. The survey has been nearly completed and considerable pipe strung along the right of way. This will afford an outlet for the Moca Field and new drilling is expected to start in that field at once.

## Wildcat Operations in Southwest Texas

**Week Ending June 10**

| Company, farm and location— | Remarks |
|---|---|
| **ATASCOSA COUNTY** | |
| A. Blume's No. 1 Shaw, 690 ft. from N line, 1,780 ft. from E line of 100-ac. tract in W. Farquhar Sur. No. 276 | T.D. 1,628 ft; drlg. |
| E. C. Burton's No. 1 Smith-Mowinkle, 2,100 ft. from N line, 200 ft. from W line of P. Peres Sur. No. 172. | Rigging up. |
| O. W. Killam's No. 1 Seitz, 1,700 ft. from NE line, 5,150 ft. from NW line of Cruz Landin Sur. No. 45. | T.D. 3,630 ft; coring. |
| **BASTROP COUNTY** | |
| J. E. Emanuel's No. 1 H. Klemm, 317 ft. from W line, 800 ft. from S line of tract in R. S. Teal Sur. | T.D. 263 ft; standing. |
| Ca-Tex O. & G. Dev. Corp.'s No. 1 Harris, 150 ft. from NW line, 3,000 ft. from SW line of John Maxmillan Sur. | T.D. 1,900 ft; drlg. |
| Ca-Tex O. & G. Dev. Corp.'s No. 1 Pendergrass, 1,343 ft. from NE, 310 ft. from SE line of 130-ac. tract in Henry Warnell Sur. | Derrick. |
| Marts & Beavens' No. 2 Reyes, 640 ft. NE of No. 1 | T.D. 1,697 ft; setting pipes after taking good core. |
| **BEXAR COUNTY** | |
| Amsden & Foster & Amsden's No. 1 S. A. Irrig. Farms, 600 ft. E of Kinney Road, 1,500 ft. N of Elm Creek. | T.D. 1,150 ft; S.D. |
| C. I. Albertson's No. 1 Vogt, 2,100 ft. from N line, 240 ft. from E line of 237-ac. tract in Sec. 2 of S. McCollough Sur. No. 53 | T.D. 906 ft.; set csg. |
| O. N. Beer's No. 1 S. W. Kearney, 150 ft. from S and E lines of 28-ac. tract in S. C. L. Peres Sur. | T.D. 1,170 ft; drlg. |
| R. S. Boling's No. 1 J. J. Appelt, 150 ft. from N and W lines of tract in M. Uriegas Sur. | T.D. 830 ft; trying to get csg. on bottom. |
| E. R. Byrd's No. 1 W. H. Russell, 750 varas from NE line, 54 varas from NW line of Fernandes Rodrigues Sur. | T.D. 1,340 ft; standing. |
| Austin Hull's No. 1 Classen, 263 ft. from W line, 2,500 ft. from S line of tract, 12 miles N of San Antonio. | T.D. 1,810 ft; drlg. |
| LaSalle Oil Co.'s No. 1 City Sewage farm, 150 ft. S of Rilling Road, 450 ft. W of NE cor. of tract in D. Bustillos Sur. | T.D. 40 ft; moving in rotary. |
| O. L. Ray's No. 1 Thos. Dillon, 3,500 feet from NW line, 1,750 ft. from most southerly SW line of de Luna grant in southern part of county | T.D. 680 ft; standing. |
| J. Morgan Russell's No. 2 Brotze, 200 ft. W of No. 1, in Cordenas Sur. | T.D. 340 ft.; drlg. |
| Earl S. Post's No. 1 Bilharts, 1,365 ft. from W line, 2,169 ft. from S line of 385-ac. tract in F. Rolen Sur. No. 48 | T.D. 784 ft; pulling csg. |
| C. A. Smith's No. 1 Henry Lamb, 750 ft. from N and E lines of Lamb farm, in de la Garsa grant | Spudded in and waiting for heavier rig. |
| Tipton's No. 1 Gembler, 514 ft. from W line, 616 ft. from N line of 130-ac. tract in M. Gotari Sur. | Spudded in. |
| **BLANCO COUNTY** | |
| Blanco Development Co.'s (McGee) No. 1 A. J. Dittmar, 1,320 ft. from S line, 150 ft. from W line of George Evans Sur. No. 58, 4 miles NW of Johnson City | T.D. 275 ft; drlg. |
| C. L. McLeary's No. 1 Mier, 600 ft. from SW line, 1,000 ft. from SE line of George Schenling Sur. No. 154. | T.D. 860 ft; standing. |
| Isham et al's No. 1 Lester ranch, 200 varas from N and E lines of Antonio Bandrand Sur., 8 miles NE from Johnson City | Spudded in. |
| **CALDWELL COUNTY** | |
| Cargill et al's No. 1 Brown, 1,600 ft. from E line, 330 ft. from S line of C. E. Brown 112-ac. tract, Dillard Cooper Sur. | Rigging up. |

(Continued on Page 58)

# Deep Test Between Muskegon and Mt. Pleasant Reaches Record Depth for Michigan Wells

By GEORGE A. WHITNEY
Staff Correspondent, Central West Fields

MOUNT PLEASANT, Mich., June 12. More than a mile deep, Newyago Oil & Gas Co.'s test on the A. J. Bates farm, NE SE Section 12, Sherman Township, Newyago County, has established a new Michigan depth record for an oil and gas test, the well now drilling below 6,418 feet. The former state record was established by the Michigan Petroleum Co. on No. 1 Moe, in Chester Township, Ottawa County, which was abandoned in 1930 at the depth of 6,310 feet.

The Bates test is now drilling in the Trenton cap rock in the Lower Silurian. Several shows of gas were made in the Bates test at the higher levels, according to log data compiled by Mr. Bates, head of the drilling company. Deeper in the Trenton (now less than 40 feet), Mr. Bates said he anticipates important showings.

Because of its depth the Bates well is of exceptional interest. Since oil was discovered in commercial quantities in Michigan several years ago at depths ranging down to 4,000 feet, there have been many optimistic opinions advanced as to the possibilities of lower formations.

At 4,800 feet a great salt bed, approximately 800 feet thick, was encountered in the drilling. Seven hundred feet more of drilling brought the hole through the Niagara limestone to the Utica shale. This formation was heavily loaded with silica.

Great pressure also occurs at the depth the well has reached, providing a terrific force to lift any free mineral deposits.

The Bates well is near White Cloud. It was started for a deep hole test in March, 1929. With the exception of a short time since drilling commenced, the test has been operated only on a day tour, 12 hours. Drilling is with a standard rig and powered by two steam boilers fired with coal.

The seven-eighths inch drill cable with tools weighs nearly 10,000 pounds and is operated on a 4-foot stroke, striking about 15 to 20 blows per minute. It requires about 14 to 20 minutes to pull out the tools or bailer and about 10 minutes to run in.

The hole was started with 16-inch casing and reduced to 12, 10, 9 and 6⅝, the latter being the size of the hole now being drilled. Approximately 3,000 feet of the well is cased.

A. A. Leicht, driller and foreman on the test, has been with it since it started. As evidenced by the fact that the drilling cable is showing little wear, the hole, despite its great depth, is running fairly straight, Mr. Leicht pointed out. Len Brooks is the tool dresser.

A. J. Brooks of Chicago is the head of the Newyago Oil & Gas Co., which is drilling the test. Mr. Bates acquired 520 acres of land in Newyago County in 1914 in a trade and never saw the land until 1928—14 years later. Then, when the discovery well in Muskegon County was brought in, December, 1927, and the Mount Pleasant Field opened in 1928, Mr. Bates says he "sat up and took notice of his property."

His Newyago land lies east of the Muskegon Field and west of the Mount Pleasant fields. It was shortly afterwards that the Newyago Oil & Gas Co. was organized and the Bates well started. The company owns in fee 1,000 acres and has about 2,000 acres under lease besides.

Although long interested in the oil and gas business, Mr. Bates had not actively engaged in it prior to the organization of the Newyago Oil & Gas Co. A mechanical engineer, Mr. Bates was consulting engineer for 18 years with the American Steel & Wire Co., invented and patented the American woven wire fence and designed and built the machines to make it and has taken out about 75 U. S. patents on other inventions.

Mr. Bates and his company are not the first to look to Newyago County as a potential oil-producing region, as several other tests have been drilled. C. W. Teater, another Chicago man, whose test in Porter Township, Midland County, on the Otway farm, opened up a prolific pool in February, also has a test in Newyago County, temporarily shut down. He is drilling a test, 990 feet from the north line and 330 feet from the south line of the Grace M. Hatch farm, SE NE NE Section 8, Brooks Township, Newyago County.

### MICHIGAN

#### 800-Bbl. Well

Four completions were reported from the Michigan fields, the largest being in Isabella County, Meridian Oil & Gas Co.'s second test on the E. L. Russell farm, NW SE NW Section 22, Vernon Township, which is credited with an initial production of 800 bbls. from the Dundee formation, and without doubt will increase development work in the Vernon Field. This is one of the larger producers found in that part of the older producing area. For the first 24 hours No. 2 Russell produced at the rate of 44 bbls. an hour, and on Wednesday was flowing at 30 bbls. an hour. It is just west of No. 1 Russell and a diagonal offset to the northwest of No. 1 on the Woods farm, drilled about two years ago with an initial of 2,400 bbls. a day. No. 2 Russell stands at the present as being one of the finest wells developed in Vernon Township. While not reaching the big production record of some of the East Field and Porter Township wells, No. 2 Russell is producing a high grade of oil, a better grade than that of the other producing areas in the Central Michigan area. Besides No. 2 Russell, there was the well brought in a week ago by Mammoth Petroleum Co., No. 1 Marseilles, in Section 23, to the east, a semiwildcat good for about 100 bbls. a day; the drilling of a test on the W. E. Currie farm, SE SW SE Section 5, Vernon Township, by Strange & Flynn, and Mellon-Pollock Oil Co.'s No. 1 on the Frank McGuire farm, C SE SE Section 36, same township, while another important test is being drilled by Michigan Oil & Gas Co., C SW SW Section 10, Wise Township, same county, and on the W. Busche farm.

#### Another Interesting Test

Another interesting test is being started by Elmer E. Brehm, trustee, 330 feet from the north line and 990 feet from the west line of the Charles M. Smith

(Continued on Next Page)

# Increased Work Expected in Central West; Four Completions Reported in Kentucky

By GEORGE A. WHITNEY

FINDLAY, Ohio, June 12.—Few completions were reported in the Central West Field, but indications are favorable for an increase in new work, as operators are getting ready to bring about a more active development.

In the old Lima Field of northwestern Ohio, Wyandot County shows more activity than for any period during the past two years, due to the bringing in of a 300-bbl. initial producer a couple of weeks ago, along with 50 and 60-bbl. wells, which are considered well worth going after. These three wells were in Crane Township. The only completed well in this county, was a gas well drilled by O'Neal and others on the Arthur J. Ruehl farm, Section 1, Crawford Township, at a depth of 1,262 feet. In Crane Township, same county, the Crane Township Oil & Gas Co. is drilling on the Frank Brenner farm, Section 33, Crane Township. Clarence Donnell is drilling No. 1 on the Sarah E. Tschanen farm, Section 34, same township. Kennedy & Temple are drilling No. 1 on the Mary Hoffman farm, same township. Keiner and others are drilling a second test on the Louis Brandt farm, Section 34, and Ferdell and others are starting a test on the Mary E. Sampson farm, Section 20, Crane Township. Jones & Coyle are drilling No. 3 on the Margaret Brillhardt farm, Section 28, and Donaldson and others are drilling No. 1 on the Minor Koechler farm, Section 20, also in Crane Township, Wyandot County. Newcomer and others are still shut down at 1,913 feet on the Albert Reber farm, Section 1, Pitt Township, Wyandot County.

Three wells are under way in the Tiffin Field of Seneca County. J. L. Barrett and others are drilling No. 1 on the T. N. Einsel farm, Section 1, Hopewell Township, and McPherson and others are drilling No. 4 on the Frank Fox farm, Section 11, same township, and R. E. Greene is drilling No. 3 on the T. C. and B. G. Shaull farm, Section 30, Liberty Township, same county.

The Upper Sandusky Oil & Gas Co., it is reported, will start another well on the Mary Loverick farm, in Section 28, Crane Township, Wyandot County.

### CENTRAL OHIO

Only two completions were reported from the Central Ohio Field, but quite a number scattered over the large field are nearing the pay sands. In Knox County, H. E. Perkins and others' test on the Perkins farm, Section 32, Monroe Township, is a commercial gas well at a total depth of 2,619 feet. In Berne Township, Athens County, Clark, Talbott and others found a dry hole on the S. L. Glover farm, in fractional Section 5, with no showing in either the Salt sand nor the Maxon sand at a total depth of 1,123 feet.

Stark County leads in drilling activities in Central Ohio, although no new wells were reported for the week. In Jackson Township, East Ohio Gas Co. is drilling below 4,200 feet in No. 1 on the Hoover Co. land, in Section 12. Same company's No. 1, on the Leonard Stockert farm, Section 26, is drilling below 3,600 feet; No. 1, on the J. W. and C. Shook farm, Section 7, is drilling around 500 feet; and White and others are drilling below 3,500 feet in No. 1 on the Sarah Lorenz farm, Section 15, Plain Township, same county. In the same township, East Ohio Gas Co. is drilling below 3,700 feet in No. 1 on the Otto Frank and others' farm, Section 20. Same company is drilling below 4,300 feet in No. 1 on the H. G. McDowell heirs' farm, Section 15; No. 1 on the T. and H. McDowell farm, Section 15, is drilling below 1,000 feet, and No. 1 on the Paul B. Belden farm, Section 18, below 3,000 feet. In Plain Township, Stark County, Brendel Producing Co. is drilling No. 1 on the J. S. Unger farm, Section 17, below 4,200 feet; same company's No. 1 I. and E. Markley farm, Section 9, is below 3,700 feet.

In Plain Township, Stark County, Cunningham Gas Co. is drilling below 3,750 feet on the Joseph Herman farm, Section 17, and same company's No. 1, on the F. and A. Willeman farm, same section, is drilling below 2,875 feet.

Lyons & Piefer are drilling No. 5 on the J. H. Weaver farm, Section 5, Fairfield Township, Tuscarawas County. Johnson and others have a rig on the William H. Kane farm, in Lot 59, Newton Township, Trumbull County.

#### Lorain County

W. J. Dempsey and Clyde J. Dougherty have a rig moved in on the H. E. Piper lease, Pittsfield Township, Lorain County, Ohio, for a deep test.

### INDIANA

Seven completions were made in the Indiana fields. In Pike County, Washington Township, Charles C. Taliaferro, Jr., found a dry hole on the Charles E. Schaffer farm, SE Section 26, and is reported drilling a second test on the Insman farm, NE Section 26, same township.

In Spencer County, Huff Township, Santa Fe Oil Co.'s test on the F. W. Grass farm, NE Section 11, is reported with an initial of 10 bbls. from the Cunningham sand. E. M. Treat and others' test on the Raymond Bretz farm, NE Section 24, Ohio Township, developed a dry hole at 1,318 feet.

In Perry County, Anderson Creek Oil & Gas Co. drilled in Nos. 8 and 9 on the Perry Andrews farm, NW Section

30, Clark Township, produced an initial of 5 bbls. for each well.

In Tippecanoe County, Coats-Smith Oil Corp. drilled a dry hole on the Methodist Church lot, in Section 27, Tippecanoe Township, at 1,650 feet, which is the Trenton lime formation.

In Porter County, V. S. Hollingsworth is drilling a wildcat on the Kenneth Wolf farm, Section 26, Portage Township. Fred Brandt is drilling No. 1 on the William F. Clark farm, NE Section 35, Huntington Township, Huntington County.

In Randolph County, Henderson Brothers are drilling on the Alwilda Smiley farm, SE Section 4, Jackson Township.

In Vigo County, a showing of gas was reported in the Niagara formation in the test being made by Pierson, Yeager and others on the Dr. John Wilson farm, SW Section 8, Prairie Township.

In Vanderburg County, L. R. Henley's test on the Nick Bassmeier farm, NE Section 15, Perry Township, is reported with an initial of 10 bbls. at 1,126 feet. Woods, Knapp and others are drilling No. 2 on the right of way of the Southern Indiana Gas & Electric Corp. lands, NW Section 33, Center Township. John Drake and others are drilling No. 5 on the John and Mary Effinger farm, NW Section 33, Center Township.

In Martin County, Sproull and others are drilling No. 3 on the John Larkin farm, SW Section 19, Perry Township.

W. T. Grossman is planning a test on the George W. Brunner farm, at the edge of Royerton, in Hamilton Township, Delaware County, which will make an interesting undertaking, as this county some 35 or 40 years ago developed some remarkable wells in the Trenton lime formation.

Knox Engineering Corp. is nearing the completion of its No. 2 on the G. C. Sampley farm, SW Section 23, Columbia Township, Gibson County.

In Harrison County, James Mahan is starting a test on the Louis Gunther farm, near the town of New Middletown.

### KENTUCKY

Four completions were reported from the western Kentucky fields, all dry holes. In the Owensboro district of Daviess County, Tracey Supply Co. and others drilled a dry hole 750 feet from the south line and 175 feet from the east line of the J. W. Richardson farm, in the Cane Run Pool, at a total depth of 740 feet.

In the Bowling Green Field, in Warren County, Murphy & Wright's test on the Charles Cox' 100 acres, in the Hardcastle Pool, proved a dry hole at 610 feet. Murphy and others are drilling No. 1 on the D. C. Butler farm, in the same pool. C. H. Morris and others are drilling on the W. A. Westbrook farm, same field.

In the Scottsville Field of Allen County, H. B. Bastrus and others drilled a dry hole on the E. B. Mayhew No. 1 farm, at a depth of 410 feet, and same parties drilled a dry hole in No. 1 on the E. B. Mayhew No. 2 tract, same area, which was dry at 135 feet. In the Mount Ariel Field, same county, Ross Work and others are drilling on the Rush Brothers' farm, and Folkem and others have a rig on the Branch Willson farm, also in the Mount Ariel area of Allen County.

## Michigan Fields

(Continued from Preceding Page)

farm, NE NW NW Section 23, Denver Township, Isabella County. This is east of the Leaton Field, about midway between the Vernon Field and the Chippewa-Greendale Field and in wildcat territory, and if it proves a commercial producer will add a large acreage for development.

In Greendale Township, Midland County, 2 wells were completed: Theodore Oil Co.'s No. 1 well, 330 feet from the east line and 990 feet from the north line of the Adrain Steel farm, NE NE SE Section 8, same township, reported with an initial of 180 bbls., and Hirtzel-Leland Development Co.'s No. 2 well on the Tope & Talbot farm, NW SE SW Section 11, same township, which produced an initial of 100 bbls.

No completions were reported in the Porter Township Field in Midland County, the busiest spot in the State at this time. Sun Oil Co. reports a fairly good showing of oil in its test, in the southeast corner of the J. L. Miller estate, SE SE NW Section 16, Porter Township, Midland County. This well at a depth of 3,398 feet flowed 25 bbls., but will be drilled possibly 20 additional feet. This test is about midway between the Otway discovery well in Section 22 and the Muscott well in Section 17. Success of the Sun well will add considerably to proving a long stretch in Porter Township. The Muscott well is approximately 1 mile northwest of the Miller and the Otway No. 2 discovery well is about the same distance southeast.

William Robinson and others' test, 330 feet from the south and west lines of the H. J. Oldham farm, SW SW SE Section 6, Greendale Township, Midland County, drilled through the first pay sand in the Dundee formation and filled up with 2,000 feet of oil in the hole, but did not flow at last report and the owners indicated it would be deepened to the second pay sand or to the third pay, if not a heavy producer in the second. This well is running high on structure and the belief is that the heaviest pay will be found in that strata.

Pure Oil Co., according to advice, will plug its test in the southwest corner of the Mills estate, SE NW SE Section 36, Mills Township, Ogemaw County. A small amount of gas was found at 1,170 feet, which is the Berea sand, but no oil was found in the Dundee. The gas volume was reported at 248,000 feet, and would supply gas for many residents.

Pure Oil Pipe Line Co. expects to complete its new Porter pump station and have it in operation within a few days. Equipped with a 100-horsepower engine, the new unit will be capable of putting upwards of 12,000 bbls. of oil a day through the company's 6-inch main to the Greendale tank farm.

James M. Taggart and others were scheduled to start drilling operations on the first offset to Barton No. 1 gas well in Austin Township, Mecosta County, within a few days. The offset is on the Robert Fish farm, SW NE SE Section 10, approximately one-half mile west of the discovery gas well.

# West Virginia Most Active in the East; Southeast Ohio Slow in Completions

By STAFF CORRESPONDENT

PITTSBURGH, Pa., June 12.—Two more wells were completed in Clay district, Ritchie County, West Virginia, one a fair producer and the other a gas well. The Richards Farm Oil Co. completed a test on the Frank R. Ball farm, about 400 feet northwest of the Hinton farm producer, and has a well showing for about 25 bbls. a day. The production comes from the Injun sand, the same formation as the other fair producers in this Lost Run Pool.

In the same district, C. F. Egan and others completed their test on the A. H. Adams farm through the Big Injun sand and have a small gas well. This test was drilled about three-quarters of a mile east of the production of the Hinton farm but north of the line of Injun sand producers. This well confirms the opinion that the producing formation continues as a narrow streak on which there is still plenty of room for locations.

The producer on the Hinton farm is still holding up and producing naturally, as well as the second well which lies on the Boehm and Neeley lease. The third well, which offsets the Hinton well, is still flowing. No other locations have been reported in this district.

Four gas wells, one other producer and three dry holes were reported from all sections of the lower eastern fields during the past week. Southeastern Ohio is notably slow in completions, but Ohio has not yet fully recovered from the banking holidays.

### SOUTHEAST OHIO

The only well completed in Southeast Ohio was a small gas well in Licking County. Three miles west of Newark City, Lot 2, Newark Township, the Wehrle Co. completed a test on the Gail Baker farm in the Clinton sand at a depth of 2,280 feet. It is a small gas well, about 75,000 feet a day, which will be used locally by the Wehrle Co.

In Hocking County, Albert Keich and others drilled a test on the E. R. Ray farm, Section 25, Starr Township. It had a small showing of oil in the Grit at a depth of 845 feet but was abandoned as a dry hole.

In Morgan County, R. C. Whitener drilled a No. 13 on the Cornelia J. Starrett farm, 1 mile west of Morganville, in Section 34, Deerfield Township. The Cow Run sand was dry at 193 feet and it was abandoned as a dry hole.

In Washington County, the test of Benedum & Trees on the E. E. Knowlton farm, Section 10, Independence Township, was abandoned as a dry hole and is being plugged. After pulling casing back to the Ohio shale at 4,200 feet, at which depth it had been planned to place a shot, the formation looked unpromising and the attempt was abandoned.

The next interesting test to be reported is that of the Mehowa Oil & Gas Co. on the Sol Haun farm, Section 8, Clark Township, Coshocton County. It is off line of production and is drilling below the 2,000-foot level. A light showing of gas was found in the Berea sand at around 950 feet.

### WEST VIRGINIA

In addition to the producer in Ritchie County, Charles Smith completed a fair well in Wood County. It was No. 5 on the Blain Casteel farm in Union district and was completed at a depth of 1,290 feet, the Cow Run sand, and is showing for 10 bbls. a day.

In Kanawha County, on the waters of Walnut Creek in Elk district, the Virginian Gasoline & Oil Co. shot their No. 19 on the J. F. Brown lease of 500 acres, and increased production from 5 bbls. a week to 3½ bbls. a day. The production is found in the Squaw sand.

#### Gas Wells

In Calhoun County, the Chemical Oil Co. completed a second test on the Margaret J. Webb farm in Sheridan district in the Injun sand at a depth of 2,080 feet. It is a fair gas well gauging about 400,000 feet a day. In Sherman district, C. W. McCall and others drilled their No. 1 on the Hamilton, Jarvis and Garrett lease deeper to the Injun sand, 2,190 feet. This formation proved dry.

In Williams district, Wood County, Warren Reed and others completed a test on the C. T. Locker farm in the Salt sand at a depth of 1,500 feet. It will make a gas well good for about 200,000 feet a day.

In Boone County the Cambridge Gas Co. shot its test on the C. C. Lewis heirs farm in Scott district in the Berea sand at a depth of 2,618 feet. The volume was increased somewhat.

In Wayne County, the West Virginia Gas Corp is drilling on the C. M. Watts farm in Union district and had a light showing of gas at 3,050 feet.

#### Drilling in West Virginia

A new test is starting in Cabell County. In Guyandotte district, Pettry and Borders are setting a machine for a test on the Shelby Johnson farm. In this district there are seven wells drilling. Copeland Gas Co. has spudded in and started drilling a test on the E. N. Waugh farm. Huffman Oil & Gas Co. is down 1,100 feet on the William Prindle lot. Adkins and Marsh have reached 1,000 feet on the C. M. Watts lease. Swanson and Martin are drilling at 1,650 feet on the J. T. Tubert lot, a test. Eureka Gas Co. has reached 2,215 feet on the Huntington Sand & Gravel Co. property. C. C. Wolfe has a fishing job on top of the Berea at 3,050 feet in No. 5 on the Ben Lomond Land Co. tract and has reached 1,800 feet on the T. H. Tanner farm.

In other parts of Cabell County, two wells are drilling. In Union district, G. W. Shipes and others have spudded in for a test on the Callie Massey farm. In McComas district, Manufacturers Light & Heat Co. is down 1,100 feet on the W. H. Holton farm.

In Gilmer County, A. E. Ellis & Co. are spudding in on the Webster and Ware lease in DeKalb district. In the same district, McCall & Co. are fishing for the packer in their No. 1 on the Mary Frymyer farm which is being drilled to deeper sands.

In Ritchie County, H. N. Rinehart is down 1,950 feet in his No. 1 on the J. B. Marker farm in Grant district which is being drilled deeper. In this district, L. P. Bickel has reached 1,085 feet on the B. F. Kerns farm.

In Putnam County, United Fuel Gas Co. is down 1,650 feet in No. 4,378 on the J. L. Ashworth farm, Curry district. In Scott district, the Teays Valley Oil & Gas Co. is still down for casing in a test on the C. H. Cottle farm.

In Wayne County the West Virginia Gas Co. is setting a machine on the Henry Adkins farm in Union district. The West Virginia Gas Co. has reached 3,050 feet on the C. M. Watts farm, same district.

In Boone County the Pure Oil Co. is drilling on the L. R. & P. tract C at 2,118 feet, No. 61 on the Federal Coal Co. tract at 1,955 feet, and a test on the Pocatello C. & C. Co. in Crook district at 2,630 feet. B. F. Best and others are down 2,345 feet on the H. A. Casdorph farm.

In Wirt County, C. S. Benedict and others are rigged up for No. 4 on the James L. Adams farm, on Big Island Creek in Clay district. In Pleasants County, Ketchap and Mincal Kelley are drilling on the R. G. W. Campbell farm in Jefferson district.

In Calhoun County, F. F. McIntosh has his deep test on the Charles and John Davis farm in Lee district down to 4,460 feet. In Sherman district, Poling and Mollahan are drilling at 1,112 feet on the F. M. White farm. In Sheridan district, W. J. and O. L. Yoke have reached 1,516 feet in a second test on the A. T. Yoke farm.

### SOUTHWEST PENNSYLVANIA

No wells were completed in Southwest Pennsylvania. There are still only three wells drilling but two more locations have been made. In Jefferson Township, Fayette County, Carnegie Natural Gas Co. is making a location on the H. H. Wells farm of 173 acres. This will be its fifth well in this district, and the producing structure is the Bayard sand at a depth of around 2,600 feet. Some fair gas wells have been drilled.

In Amwell Township, Washington County, where the only three wells are drilling, Jess Moore & Co. have made a location on the John Parker farm. This is about 2,000 feet southeast of Carnegie Natural Gas Co.'s well on the C. L. Morton farm and in direct line with the producer on the Haslett farm. Hallam and Lewis are still shut down at 2,632 feet in their test on the John Roach farm waiting on casing. Carnegie Natural Gas Co. is down 2,040 feet on the Mrs. Meusser farm. Raymond Orrill is drilling at 1,250 feet in No. 3 on the Martha Haslett farm. The Pittsburgh Coal was at 824 feet.

But one change was made in the wildcats drilling and that was in the Benedum & Trees test on the I. Kaufman farm in Wise County. The depth is now past 3,600 feet.

# Carter and Continental to Drill Wildcat in Lea County, New Mexico, West of Eunice

By TOLBERT R. INGRAM
Staff Correspondent, Rocky Mountain Area

DENVER, Colo., June 12.—The Carter Oil Co. will drill jointly a wildcat in Lea County, New Mexico, west of the Eunice area and south of the Empire Pool. A Pennsylvanian test is to be drilled on the Ambrosia Lake structure in McKinley County. There were no completions.

In Colorado, Continental Oil Co.'s No. 1 Anthes, in Weld County, tested dry in the Muddy sand and probably will be abandoned. Another test may be drilled farther to the west. Moffat County is showing activity with one new location reported and three others to be made shortly.

In Wyoming, a 10-bbl. pumper was completed in the Osage Field and one location was reported on the Midway Dome in Natrona County.

In Montana four new locations in the Cut Bank Field were released. There were no completions.

## NEW MEXICO

### Lea County

Location was released this week for a wildcat to be drilled in southeastern Lea County as a joint operation of the Carter Oil Co. and the Continental Oil Co. in their No. 1 State, C NE NE Section 28-22-35. This is to the south of the Empire Pool and to the west of the South Eunice area and 6 miles from any other test drilled in that district. It is approximately 6 miles west of the Continental Oil Co.'s No. 1 William Meyers, SW cor. NW Section 28-22-36, which was completed as a gas well in 1930 at 3,772 feet after plugging back from 4,304 feet, and the same distance east and south of C. E. Reynolds and others' No. 1 Merchant, SE cor. NE Section 15-22-34, which was abandoned in 1929 at 4,052 feet. Materials for the new test are being moved in.

In the Hobbs Pool, the Amerada Petroleum Corp.'s No. 3 Hardin, NW cor. SW Section 18-18-38, at the north end, was deepened 20 feet to 4,180 feet and tested all water. It was plugged back with 50 sacks and will test above 4,134 feet. This well is a south offset to the Humble's No. 1 Hardin, which was abandoned after finding nothing but water.

In the Jal area, the Continental Oil Co.'s No. 1-A Wells, SW NE NW Section 12-25-36, joint with the California Co., is bottomed at 3,380 feet in lime and preparing to test. A core taken from 3,345-80 feet showed some oil. It gauged 23,500,000 feet of gas at 3,265-3,340 feet. At 3,200 feet it gauged 51,000,000 feet. E. B. Guess' No. 1 Conditt, C SW SW Section 12-25-36, is shut down at 530 feet for rotary tools.

In the Lea area, the Texas Co.'s No. 3-A Lynch, C NW NE Section 34-20-34, cemented the 8¼-inch on bottom at 1,617 feet with 70 sacks and is waiting. It topped the anhydrite at 1,606 feet. The elevation is 3,725 feet. Cranfill & Reynolds' No. 4 State, C Lot 10, Section 2-21-33, is rigging up.

### Eddy County

C. H. Lockhart and others' No. 2 Root, C SW SW Section 7-17-30, Maljamar area, is drilling at 350 feet in gypsum. The Western Drilling Co.'s No. 2-A Green, C SW NE Section 29-17-29, Jackson area, is shut down at 1,200 feet in anhydrite. R. D. Compton's No. 4 Brainard, SE SE Section 5-18-27, southwestern Artesia, is drilling at 2,220 feet in lime, and Flynn, Welch & Yates' No. 64 State, SE NE NW Section 10-19-28, is shut down at 1,897 feet in gray sand and shale. Ralph Spearow and others' No. 1 McClellan, SW NW NE Section 22-22-23, Indian Creek, is drilling at 2,552 feet in black lime. Same syndicate's No. 1 McIntyre, NW NW Section 27-23-25, Dark Canon, is building rig.

### Chaves County

Warman Oil Trust's No. 1 Weldon & Hoar, NW cor. SE Section 9-14-25, Blackdom district, is drilling at 1,003 feet in lime. The 6⅝-inch was set at 980 feet to shut off sulphur water at 891-902 feet. There was more sulphur water at 986 feet.

### DeBaca County

The Landowners Oil Co.'s No. 1 State, SW cor. NE Section 16-1s-27, Buffalo Creek, is shut down at 5,860 feet.

### San Miguel County

The Starr-Kennedy Oil Co.'s No. 3 Adams, NE cor. Section 25-17-16, Graham district, which has been tied up for months with string of parted pipe in the hole, is drilling by at 4,770 feet. Total depth is 5,093 feet.

### Santa Fe County

Kelsey Clients Development Estates' No. 2 State, C NW Section 22-10-10, Crow Butte district, is drilling at 735 feet.

### Bernalillo County

The Norins Realty Co., Inc.'s No. 1 Pajarito grant, NW cor. NE Section 22-9n-1e, southwest of Albuquerque, is drilling at 5,104 feet, below old contract depth of 5,000 feet.

### Guadalupe County

Anton Chico Development Co., Ltd.'s No. 1 Anton Chico grant, NE cor. SW Section 20-9n-17, is drilling at 2,315 feet.

### Valencia County

The Western Natural Resources Corp., Inc.'s No. 2 San Clemente grant, SW cor. NE Section 5-6n-1e, DeChaves district, is drilling at 4,578 feet in brown sandy shale.

### McKinley County

A deal has been completed with the K. B. B. Corp., a California corporation composed of New York and California capital, whereby a test will be drilled to the Pennsylvanian series on the NW NE Section 14-14n-10w, Ambrosia structure, as reported by Roy G. Barton, of Clovis, N. Mex., who assembled the acreage. This location is about 6 miles south of a test drilled in 1923 by the Midwest Refining Co., which was abandoned in the McElmo formation at 1,460 feet. The Walker Dome Oil Co. drilled to the west of the Midwest location several years ago and had oil in sand at 998-1,012 feet.

Figures compiled by the New Mexico tax commission gives the total production in New Mexico for the first three months of 1933 at 2,542,126 bbls., of which Lea County produced 2,371,169 bbls.; Eddy County, 99,527 bbls.; and San Juan County, 71,430 bbls.

## COLORADO

### Weld County

Surprise and disappointment followed the testing of the Continental Oil Co. and others' No. 1 Anthes, C NE NE Section 24-8n-59, New Raymer district, this week in the Muddy sand after plugging back from the Dakota. The hole was bailed dry without yielding an odor of gas or a trace of oil. Showings of both oil and gas in the cores from the Muddy had led to the belief that the well would come in as a gasser. It probably will be abandoned unless it is decided within the next day or two to carry it on down for a test of deeper horizons.

After cementing back from a total depth of 6,658 feet to 6,559 feet to shut off water in the Dakota, the plug was drilled out to 6,563 feet and the 2½-inch tubing was run to 6,545 feet. The hole was swabbed down without anything showing. When swabbing stopped it was making about 4 bbls. of water per hour. It then was allowed to stand and water rose 250 feet in the hole. It was swabbed again and after making 8 or 10 bbls. of water it stood bone dry. Since then it has been standing.

The failure of this test by no means ends the belief that an oil pool will be found in northeastern Colorado. The fact that No. 1 Anthes was a failure, although it ran higher than the Ramsey Petroleum Co.'s No. 1 St. Anthony, a gas well 5 miles to the south, is considered conclusive that the two wells are on separate structures. Already negotiations are getting under way looking to a joint test near Buckingham, to the west of No. 1 Anthes. The Ohio, Texas, Continental, Centennial Plains and the Ramsey companies are being mentioned as those who may participate. Final decision probably will be reached at a conference next week. R. E. Franks, vice president of the Ramsey company, said his company expects to wind up its Oklahoma drilling campaign soon and will then devote its attention to Colorado. It probably will start a well by mid-July. He said the company thought well of its Weld County acreage and that the Anthes test showed its gas well was on a separate structure. The Ramsey leases to the north of the gas well, which required drilling to begin by June 1, have been extended to September 1.

### Moffat County

Moffat County, in the northwestern part of the state and across the range from the northeastern Colorado development, is becoming the most active area in the state and considerable drilling is being lined up for this year. The Moffat, Iles, and Hiawatha Fields are located in this county.

The Mountain Fuel Supply Co.'s No. 2 Florence Wilson, C NE NE Section 22-12n-100, Hiawatha Dome, which is to be a deep test with rotary, probably to 7,000 feet, is coring in a gas sand at 2,310 feet. This is the horizon which produced 57,000,000 feet per day initial in the discovery well on the same quarter. This company is planning to drill an offset to its No. 1 Lasher, NW NE NE Section 25-12-101, Bartram Dome, Hiawatha district, which was completed at 2,160 feet in 1930 as a gas well. Location has not been released, but three years ago the company dug a cellar for its No. 1 Wheeler, SE NW NW Section 30-12-100, an east offset. This will require another offset by the Texas Co. The last named has been paying compensatory royalty on its permit.

The Mountain Fuel Supply Co. also has rig up for its No. 1 Hatch, C NW SW Section 9-11n-101, Sugarloaf Dome, southwest of the Hiawatha Field, but may not start drilling until the Hiawatha deep test is completed.

Farther to the south, 3 miles west of Craig, Rocky Mountain Gas Co., affiliated with the Ohio Oil Co., is building rig for rotary for its No. 1 Eberle, SE SW SE Section 9-6n-91, Craig Dome. It is less than 1,500 feet southwest of its No. 1 Bigneschultz, the discovery well, and the only well so far drilled on the structure. The Bogenschultz was completed at 2,807 feet a year ago for 11,000,000 feet of gas per day. The gas is being piped to Craig and the well furnishes an ample supply, but as a precautionary measure, a reserve supply will be developed. The contract has been given to the Vaughn Drilling Co. and it will be drilled with a rotary.

The Texas Co. also is scheduled to drill a well on the Iles Dome, but location has not been released. It will be somewhere on the Iles tract in Section 23-4n-9e, on the east side of the field.

### Rio Blanco County

Th California Co.'s No. 1 California-Raven, NW SE Section 30-2n-102, Rangely Dome, which was plugged back from 7,173 feet to 6,315 feet to test the Weber formation, was subjected to a series of shots between 5,657 and 6,200 feet and is cleaning out. At last reports it was not known what effect the shots produced. On a swabbing test it had been making about 100 bbls. of fluid per day, of which 80 per cent was oil. The water had been gradually reduced until it was about exhausted when given the shots. The Weber is the equivalent of the Tensleep in Wyoming.

### Routt County

The Mid-Colorado Petroleum Co.'s No. 1 Omholt, NE cor. SE Section 29-4n-87, Fish Creek, is shut down at 2,200 feet. W. H. Ingersoll went to the well this week to resume, but returned to Denver with samples of drip gasoline from the well. The hole has been drilled without any casing except for the surface pipe and Ingersoll cemented off bad ground as he went down. The well is making about 3,000,000 feet of gas per day from the Frontier topped at 1,917 feet.

### Park County

The South Park Oil & Gas Co.'s No. 1 Esche, SE cor. NW Section 5-9s-76, Como district, is bottomed at 2,465 feet and fishing for 8¼-inch pipe. It has recovered 109 joints and 5 joints remain to be fished out. It is showing some gas and builds up enough pressure to make the water slop over about once a day. The South Park Oil Co.'s No. 1 Milligan, NE cor. SE Section 13-8s-76, Jefferson district, has mudded off water at 3,042 feet total depth after landing the 4¾-inch at 3,025 feet and is ready to resume.

### Prowers County

The Shastatex Oil & Gas Co.'s No. 1 Lotus Oil, NW NE NE Section 15-23-46, Lamar district, is shut down at 375 feet for sand line.

### Archuleta County

The Oil City Petroleum Co.'s No. 4 Crowley, SE NW NE Section 14-32-1e, Chromo district, is drilling at 511 feet.

### Jackson County

The Continental Oil Co.'s No. 1 Hoye, NE SW NE Section 34-9n-78, South McCallum Dome, which has been standing since 1928 after encountering a flow of carbon dioxide gas at 4,875 feet which defied all attempts to control, is standing, without being completed or abandoned. It is on a 2,560-acre permit held by Rosamonde Hoye. A suit brought by Mrs. Hoye to compel the company to pay her $92,140 damages for failure to develop the permit and cancel the lease

was decided in favor of the Continental Oil Co. at a hearing before Federal District Judge Symes. The court held that no proof was offered that oil was discovered or that it exists beneath the land at the present time.

### WYOMING

#### Weston County

The General Oil Co.'s No. 1, NE NW SE Section 22-46-64, Osage Field, was shot at 2,255-60 feet and will make a 10-bbl. pumper. The Duluth-Wyoming Oil Co.'s No. 3, SE cor. SW Section 12-46-64, is preparing to run 8¼-inch below 200 feet. The Paymac Oil Corp.'s No. 1 Toyne, SE NW NE Section 3-46-64, had a show of oil below 1,650 feet and stopped to run the 5⅞-inch. Rose & Herbison's No. 1, NW NE NE Section 13-46-64, is spudding.

#### Niobrara County

The Interstate Oil & Refining Co.'s No. 1 Morrell, NW NE SE Section 2-39-61, West Mule Creek, a deep test to the Minnelusa, has drilled by tools and cemented the 6¼-inch at 2,220 feet. It is estimated to be around 100 feet off the objective, which was productive in East Mule Creek in the only test drilled to that horizon.

#### Albany County

S. Marvin James & Co.'s No. 1-A Hindry, C SW SW Section 10-13-76, Riverside district, is bottomed at 1,262 feet and preparing to run the 6⅝-inch. It is believed to be on top of the objective Tensleep in the Casper formation and just above its present depth it had a show of oil in a thin streak of sand.

#### Carbon County

The Mutual Oil Syndicate's No. 9 Dutton Creek Oil & Gas, NW NE Section 12-18-78, Dutton Creek, is moving in rotary rig from Rangely, Colo., for deep well to the Muddy at 4,800 feet. Before starting, it probably will be used to clean out the two producing Muddy sand wells drilled by the Midwest Refining Co. and taken over some time ago by the Mutual syndicate. The Ohio Oil Co.'s No. 1 Hazlett, SW Section 34-23-79, Allen Lake, set the 12½-inch at 391 feet and is drilling at 450 feet. Earl W. Reeder, Inc.'s No. 1 Union Pacific, C SW SW Section 19-20-83, Pass Creek, is drilling at 900 feet. The 15½-inch was set at 600 feet (cor.).

#### Natrona County

The Mutual Oil Syndicate's No. 2 Boyer, NE SW NE Section 23-35-79, Midway Dome, a core drill test to the Shannon at 2,400 feet, is spudding. It is 660 feet southwest of No. 1 Boyer, which had a show of oil and gas in the Shannon. The core tests indicate that the structure is rising towards the southwest as No. 1 Boyer was 10 to 13 feet higher on the Shannon than the two deep tests drilled.

The Empire State Oil & Gas Co.'s No. 17, NE Section 12-33-83, Poison Spider, is setting the 5⅞-inch on top of the sand at 1,333 feet. Leo B. Murphy and others' No. 1, SE NW Section 29-33-80, North Platte, which has been idle for some time at 840 feet after running the 8¼-inch to shut off water, is resuming. The water had broken through and pipe will be recemented. This well is to be carried to the Sundance and if it is not commercial, it is planned to drill another at a location a mile or two away. The Summitt Oil Co.'s No. 1 Trewitt, NW cor. Section 21-33-80, North Platte, which has been standing at 1,825 feet waiting for 6⅝-inch to complete water shutoff, is reported to have arranged for the pipe and preparing to resume.

#### Fremont County

The Texas Co.'s No. 2 State-Ridgway, SE SW SW Section 36-34-95, Alkali Butte, is bottomed at 4,930 feet and milling on top of pipe.

#### Sweetwater County

The Mountain Fuel Supply Co.'s No. 2 Cappers, SW cor. NW Section 12-19-104, North Baxter Basin, cemented the 10¾-inch at 2,580 feet on top of the Dakota. The Frontier carried water. Same company's No. 2 Union Pacific, SE cor. NW Section 21-16-104, South Baxter Basin, is drilling at 775 feet. The Wyoming-California Petroleum Co.'s No. 1, SW SE SE Section 23-17-104, is fishing at 4,111 feet.

### MONTANA

#### Glacier County

Four new locations were reported in the Cut Bank Field this week, all of which are required offsets and which will be drilled by the Montana-Headlight Oil Co. under an agreement with R. C. Tarrant. The company has a block of 2,700 acres held by the Jerome Drumheller interests of Spokane, who drilled the first gas well in the field. Tarrant will do the drilling under a turnkey contract and he will become a stockholder in the company. The locations are as follows: No. 1 Britton, NW SW NE Section 14-34-6w; No. 1 Yunck, C SW SW Section 1-34-6w; No. 2 Britton, SW NW SE Section 14-34-6w; and No. 1 Williams, NW cor. NE Section 11-34-6w.

R. C. Tarrant's No. 1 Miller, C NE NE Section 24-34-6w, the only flowing well in the field, is now flowing steadily and making an average of 350 bbls. per day. Tarrant's No. 2 Haglund, Jr., C NW SE Section 13-34-6w, topped the Colorado at 445 feet, cemented the 12½-inch at 477 feet with 40 sacks, and is drilling at 670 feet, and his No. 1 Hope, C SW SW Section 18-34-5w, is drilling at 200 feet.

The Par Oil Co.'s No. 1 Haines, SE SE Section 2-34-6w, the first oil well to attract attention to the district, which was drilled by the B.&H. Oil Co., topped the Darling sand at 2,798 feet and is still drilling in sand at 2,830 feet with 1,500 feet of oil in the hole. It was a small producer in the Stewart sand several years ago, but was not completed due to a bad hole. The new operators drilled by the junk and apparently have been rewarded with a good producer. The same company's No. 2 Haines, SE cor. SW Section 2-34-6w, is building derrick.

The Alberta-Pacific Consolidated Oil Co.'s No. 2 Matson, SE NE SW Section 14-34-6w, topped the Kootenai at 2,270 feet and is drilling at 2,670 feet, and its No. 2 Kiesel, SE cor. NW Section 11-34-6w, set the 15½-inch at 67 feet and is drilling at 225 feet. The Dakota-Montana Oil Co.'s No. 1 Haglund, Sr., SW NW NE Section 14-34-6w, topped the Kootenai at 2,250 feet and is drilling at 2,575 feet. W. M. Fulton's No. 1 Haggerty, NE cor. Section 16-34-6w, topped the Kootenai at 2,410 feet and is drilling at 2,650 feet. The Hannah-Porter Co.'s No. 1 Britton, NW NE NE Section 23-34-6w, was shot with 160 quarts at a total depth of 2,893 feet and is cleaning out and swedging the 8¼-inch at 2,655 feet, where it collapsed.

The Santa Rita Oil & Gas Co. and P. T. Sweeney's No. 1 Jacobson, C NW NW Section 23-37-5w, 7 or 8 miles to the north of production, is still reported shut down at 2,490 feet. Santa Rita's No. 2 Blackfeet, SE NW Section 15-35-6w, is drilling at 2,200 feet and carrying the 10-inch, and its No. 1 Olson, NE cor. Section 26-34-6w, topped the Kootenai at 2,265 feet and is drilling at 2,810 feet.

#### Carbon County

The Ohio Oil Co.'s No. 9 Souders, C NE SW Section 2-7s-21, Dry Creek, has completed rigging cable tools at 5,471 feet and is ready to drill into the Lakota, which showed oil and gas in the top. The Montana Reserve Oil Co.'s No. 1 Crofts, SE cor. SW Section 34-6s-21, is ready to resume at 750 feet after changing over to rotary.

#### Petroleum County

Minnesota-Flatwillow Oil Co.'s No. 1, SW SW Section 4-15-29, Cat Creek, is drilling at 1,300 feet.

# Turner Valley Field Operators Are Turning to Light Crude From the Upper Sands

By VICTOR LAURISTON
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CHATHAM, Ontario, June 10.—In the Alberta end of the international Red Coulee Field, Devonshire Oils' No. 1, LSD 3, Section 10-1-16w4, has been abandoned after drilling to the Ellis-Madison contact at 2,522 feet. The lower gas sand was struck at 2,355 feet, with a small show; and an oil sand at 2,465 feet, with a small oil show at 2,476 feet. Drilling was continued, and water was struck at 2,505 feet, forcing the fluid 1,800 feet up in the hole. The results indicated it had been located too far east. Plans of the company for further testing of its acreage have not been completed, but it is expected No. 2 will be drilled farther west, the oil and gas shows in No. 1 indicating possibilities of commercial production in that direction.

#### Twin River Test

On the Twin River structure southeast of Lethbridge, Nordon-Roney's No. 2 Twin River, LSD 11, Section 2-2-20w4, is below 3,720 feet and coring, after changing from rotary to standard tools. It is planned to set 8-inch pipe as soon as a hard lime is reached in the Ellis, and drill in with standard tools. No. 1 Twin River, which was lower on structure, finished at 3,890 feet after getting a small crude oil production in the top of the Madison.

#### South Turner Valley

In the South Turner Valley area, Becker Syndicate's No. 2 Anaconda, LSD 15, Section 28-18-2w5, got a strong show of gas in the top of the Blairmore formation at 2,455 feet. Drilling was discontinued and 13⅜-inch casing lowered. New hole is now being made. While the cardium sandstone marker in this test was encountered only 70 feet higher than in Merland's No. 1 producer to the east, the log shows the Blairmore formation some 600 feet higher than in the Merland well and 1,100 feet higher than in Mar-Jon Freehold's No. 1, farther south in the same section, indicating that No. 2 Anaconda is at a high point on the structure.

In the same section Pacalta Oils' No. 1, LSD 7, is running 21-inch pipe to 100 feet. This is the first of a series of approximately 12 new tests planned by various companies for the far south end of the Turner Valley Field this summer. Sunburst-Mid Royal's No. 1, LSD 14, same section, on the former Ray Knight acreage, is rigging up. Sterling Royalties' No. 1, LSD 1, Section 33-18-2w5, midway between the Merland, Mar-Jon-Freehold and Sterling Pacific's No. 2 producers has let contracts.

#### Far South Showing

In the far south end of the South Turner Valley area, Union Drilling Co.'s No. 1, LSD 8, Section 21-18-2w5, got a slight oil show at the Belly River-Benton contact at 320 feet. The test is the farthest south yet undertaken in Turner Valley.

Slightly farther north, Hoffar-Lundy Syndicate's No. 1, LSD 13, Section 22-18-2w5, has resumed drilling after setting 16-inch casing at 1,550 feet. It had a small oil show in the Benton shale at 1,000 feet.

#### Central Turner Valley

In the Central Turner Valley Field, New McDougall-Segur Oil Co.'s No. 6, LSD 11, Section 12-20-3w5, has resumed drilling from 2,040 feet on a test of the McDougall-Segur light crude sand, looked for around 2,880 feet. New McDougall-Segur's No. 5 was shot but no marked improvement in the light crude oil flow was indicated immediately.

Okalta Oils' No. 2, Section 1-20-3w5, is preparing to take light crude production from the upper horizons. At one time it had an indicated production of 50 bbls. a day or better, which was shut off to deepen to the lime.

#### North Turner Valley

In the North Turner Valley, Model Oils' No. 2, LSD 16, Section 22-20-3w5, was drilling below 5,581 feet, and expected to reach the crude naphtha horizon around 5,650 feet.

#### Light Crude Producer

While most of the new drilling in the Turner Valley has the crude naphtha horizon of the deep lime for its objective, more attention is being given to the upper sands where light crude oil is found. The production from these sands is not large, a good well running from 50 to possibly 100 bbls.; but it can be reached by much shallower and less expensive drilling. A new development is the effort to recover such production from deep wells which failed to get or maintain satisfactory crude naphtha production from the deeper formation. In the Central Turner Valley area, Okalta Oils' No. 2, Section 1-20-3w5, is pulling 6-inch casing to take light crude production previously cased off in drilling to the lime. In Section 12-20-3w5, Widney Petroleums' No. 1 at one time took a good light crude production from the shallow horizon. Later the test was carried to the Madison with unsatisfactory results; and it has since been plugged back and is again producing a fair yield of 49 degree crude.

#### Hunter Valley Test

In the forest reserve area west of Olds, Hunter Valley Oil Co.'s No. 1, Township 31-10w5, is making new hole after cementing 21¼-inch casing at 84 feet. The location is in the foothill area about 65 miles northwest of Calgary. The Hunter Valley Oil Co. is backed by British capital, the officers being, president, Campbell M. Hunter, O.B.E., London, England; vice president, R. J. McLaren, Calgary; secretary, G. Sheane, Calgary; assistant secretary, W. M. Baird, London, England; director, Major T. Wendell McDowell, Montreal. The area was selected by Campbell M. Hunter, the British geologist, and the Katherine anticline, on whose crest the company holds 15,668 acres of leases, is reported by him as having a minimum closure of 2,000 feet. Drilling started in the lower Benton and the Blairmore formation, where 16-inch casing will be set, is looked for between 1,000 and 1,200 feet, with the first potential oil horizon around 1,500 feet or less.

#### Fort Norman Field

To meet the increasing demands of the new mining area at Great Bear Lake, in the North West Territories, Imperial Oil, Ltd., is this season extending its operations in the Fort Norman oil field on the Mackenzie River. Operations in 1933 will again be in charge of R. W. McKinnon, who was production manager last year in the far northern field. This year he will have as first assistant F. Willock of the Imperial Oil Refineries staff at Calgary. The party will go from McMurray to Fort Norman by plane. This year

both Nos. 1 and 2 discovery wells will be operated to meet the requirements of the refinery; while tankage capacity at the plant is being increased to 1,400 bbls. Tanks are being shipped from McMurray. Oil from the refinery runs 28 degrees and gasoline around 64 degrees. Last year the output, was used for fueling boats on the northern waterways and in mining plants in the Great Bear Lake area, 300 miles east of Fort Norman. Oil burning power plants have been generally adopted by the developing companies in the mining area. No new drilling is anticipated, as production of the two wells, estimated 140 bbls. a day, is sufficient to meet the requirements of the north for the time being.

#### British Columbia Operations

In southeastern British Columbia, Columbia Oils, Ltd., of Vancouver is completing arrangements for its No. 1 test in the Sage Creek section of the Flathead Valley. This field is 7 miles west of the Alberta boundary, about 10 miles north of the international line, and some 70 miles southeast of the Turner Valley Field. The area has been known for oil and gas seepages for many years but have failed to get conclusive results, owing largely to the equipment and methods used in attempting to drill through a great thickness of overthrust metamorphosed rock of the pre-Cambrian formation. This rock is thought to provide the capping over the main oil reservoir. Columbia Oils, Ltd., which has subleased extensive acreage from the Amalgamated Oil Co., will utilize standard tools for the shallower drilling, continuing from a depth of several hundred feet with heavy duty diamond drilling equipment similar to that used at Ventura and Signal Hill. Seepages indicate a high grade crude.

Glacier-Crow's Nest Oil Co. is reported to have let a contract for a 10-inch structure test on its acreage in the Sage Creek area. Gas from Crow's Nest No. 1 will be used for fuel.

#### Drilling in Ontario

In Dover Township, Kent County, Ontario, Raleigh Development Syndicate's No. 1, Stevens farm, Lot 2, front concession, is reported drilling on top of the Trenton limestone close to 2,900 feet. The test drilled through more than 100 feet of rock salt.

In Essex County, Bon Jasperson's No. 1, Lot 14, Concession 2, Maidstone Township, is down 225 feet and reaming.

Shareholders of Acme Gas & Oil Co. elected the following directors: W. R. P. Parker, W. D. Ross, A. B. Stodart, J. H. C. Waite and Dr. W. F. James. Mr. Ross succeeds Mr. McCullough, who resigned.

A wildcat test for shallow oil is being drilled by George Willets of Bothwell in the northwest corner of Kent County, on or near Lot 23, Concession 2, of Chatham Gore. The area, near the town of Wallaceburg, has not previously been tested for oil. The test is reported drilling below 300 feet.

## La.-Ark. Fields

(Continued from Page 49)

Section 19-11-13, DeSoto Parish, was drilling broken lime at 2,789 feet. Evers and Collingsworth's No. 1 Hickman-Simmons, NW NW Section 40-4-1e, Rapides Parish, was drilling at 1,625 feet and Smith and others' No. 1 Lee Lumber Co., NW SE Section 13-5-2e, Rapides Parish, well over toward the Catahoula Parish line and more or less in line of the Conroe-Jackson play, was drilling at 1,430 feet.

Edwards and Clay have 1,000 feet of oil in the hole in No. 1 Louisiana Pecan Orchard, Section 27-13-11, Red River Pool of 1919-21, and will pump from central power. Llano Del Rio Co-operative Colony's No. 1 fee (Gulf Lumber Co.), SE NE Section 6-1n-9, Vernon Parish, topped the Jackson at 2,062 feet and was shut down for fuel at 2,087 feet. Wingfield and others, who abandoned No. 1 Union Sawmill in Section 27-23-1e, Union Parish, early last month at 3,193 feet as a dry hole, are reported making arrangements to carry it deeper. Since there has been no deeper hole drilled in that part of the county during the last 10 years it will be another item in the growing "deep hole" campaign in North Louisiana-Arkansas territory.

#### Converse Area in Spotlight

Converse area of Sabine Parish, much debated as to whether it will or will not be a spectacular field, remains in the spotlight. Next to Zwolle it is about the most active spot in the territory. Chief Oil Co.'s No. 1 Bowman-Hicks, NE NW Section 36-9-16, 2 miles southwest of production, hit a salt water sand at 3,240-50 feet and shut down. Production in the discovery well 2 miles northeast, was at around 1,600 feet in chalk. Mamie Hammonds' No. 1 Patrick, in the extreme opposite corner of the area, Section 1-9-13, 3 miles northeast of production, topped the blossom at 2,255 feet and had a fishing job at 2,484 feet.

Lambert and others' No. 1 Edwards, SW NW Section 29-9-13, a mile southwest of a producer, was shut down at 3,360 feet. Drill stem tests at 3,045-3,328 feet resulted in 14 thribbles of fluid, 8 of mud and 6 of salt water, in an hour and a half, notwithstanding which the test may be taken on down to 4,500 feet thus adding another to the growing list of deep tests in North Louisiana. H. C. Lessenger's No. 1 Bowman-Hicks, NW SW Section 13-9-13, a mile southeast of a producer, was dry at 1,620 feet and again at 2,031 feet, was out of the chalk at 2,109 feet and shut down at 2,234 feet. Sabine Production Co.'s No. 1 Whiting, SW SW Section 4-9-13, 2 miles northwest of the nearest producer, cemented 6-inch casing at 2,983 feet, total depth 3,082 feet. It has staged a series of gas blowouts the last of which, at around 3,000 feet, prompted use of much baroid and iron oxide to hold it down, and was the occasion of excitement. A study of these wells and their location with respect to the original producers in Sections 19 and 15-9-13 would seem to indicate that Converse, if it ever does develop into an important producing area at present levels—and it has production in three horizons—will be of limited extent.

In the Zwolle district of Sabine Parish, E. F. Neely's No. 1 Garner, Section 15-7-11, was dry at 2,750 feet and awaiting orders. Ike Gearreald and others' No. 1 Shull, SW SW Section 26-8-12, used acid at 2,589 feet, tested dry, and is awaiting orders.

#### ARKANSAS

After being idle or unreported since last March, Kendall and others' No. 2 Fullenwider, NE NE Section 13-17-22, Columbia County, is reported drilling lime at 3,090 feet. This is an old well begun many months ago and shut down at intervals for one reason or another and at one time abandoned. R. V. Harrell and others' No. 1 McGoughey, NW NW Section 22-7-10, Jefferson County, was reaming to bottom, total depth 1,400 feet. Lawrence Cook and others' No. 1 McGhee Planting Co., NE SW Section 5-8-7, Lincoln County, was shut down for rig repairs at 4,280 feet. In Little River County, American Portland Cement Co.'s No. 1 fee, Section 21-12-32, was still coring at 2,430 feet. Howell and Greer's No. 1 Taafe, NW NW Section 25-12-32, had drill stem stuck at 2,240 feet, total depth 2,919 feet.

Miller County remains quiet so far as developments of importance are concerned. Fitzwater and others' No. 1 Norsen, SE SW Section 20-15-27, was drilling at 2,930 feet. It is several miles southwest of the five successful tests in Miller County. Sam Riggs' No. 1 Boyer, SW NE Section 12-15-27, was drilling at 1,480 feet. Sorrell and Tidwell were drilling at 2,835 feet on No. 1 McCowan, NW SE Section 22-15-28.

#### Mississippi-Alabama-East Texas

In Panola County, East Texas, Mid-Continent Drilling Co. cemented 6⅝-inch casing at 2,030 feet on No. 1 Wooten in the P. Maryin Survey. Concord Oil Co. sidetracked junk at around 2,850 feet on No. 1 Dillahunty, Robert Glass Survey, and was shut down at 2,900 feet. General Minerals Co. is reported going back to Western World Publishing Co.'s No. 1 Foster and Billingsley, abandoned in November last year at 2,895 feet and drilling lime at 3,310 feet.

Eastman-Gardiner interests' No. 1 Bank of Deming, NW NW Section 26-8-15, Covington County, set 400 feet of 12½-inch for surface string and was coring at 500 feet. No. 1 Eastman-Gardiner, NE NW Section 29-9-16, Covington County, is still shut down and temporarily abandoned at 3,595 feet. P. J. McAlpine's No. 1 Rye, Section 22-15-17, Monroe County, was coring at 2,973 feet. Julian Alexander and others' No. 1 Rice, NW NW Section 6-5-2e, Rankin County, Jackson gas district, cemented 6⅝-inch at 2,408 feet. Top of the black shale was at 2,280 feet and top of the chalk (gas rock) at 2,408 feet. Foster Creek Oil & Gas Co.'s No. 1 Foster Creek Lumber Co., Section 12-2n-2w, Wilkinson County, another test in the Mississippi end of the Conroe-Jackson trend, was drilling at 3,620 feet.

Escambia Oil Co.'s No. 1 State Line Lumber Co., NE NW Section 24-1n-10, Escambia County, Alabama, was drilling at 2,850 feet. DeSoto Oil & Gas Corp.'s No. 1 Gardner, Section 22-15-16, Lamar County, Alabama, was reaming at 3,100 feet, total depth 3,350 feet. R. L. Estabrook's No. 1 Walton Land & Timber Co. in Walton County, Florida, was drilling at 4,100 feet after whipstocking at 4,100 feet, total depth of old hole 5,250 feet.

#### ADVANCED WELDING COURSE

Another Advanced Welding Course is to be given by John Huntington Polytechnic Institute, Cleveland, Ohio, July 10. The course, being repeated due to the success of the previous ones, is designed to give engineers and experienced operators an opportunity for a week's intensive study from both the practical and theoretical standpoints.

Days, from 8:30 a.m. to 3:30 p.m., will be spent at the plant of the Lincoln Electric Co., which has offered the facilities of its welding school. Evenings from 6 to 8 will be occupied by lectures at the John Huntington Polytechnic Institute. Study at the welding school will include practice, demonstrations and lectures on welding machines, electrodes and automatic welding. Not a little time will be devoted to the welding of alloy steels and nonferrous metals.

The evening lectures will consist of discussions of welding electrodes, weld metal, calculations of weld strength, shape of beads and stress concentration, designing for welding, supervision and inspection of welds and allied problems. The only charge for the course is for materials used in practice work. Those enrolled will have the opportunity of consultation with the instructor on their special problems.

## Wildcat Operations in Southwest Texas

(Continued from Page 53)

De-Tex Oil Co.'s No. 1 Louis Rogers, 900 ft. from NE line, 400 ft. from SE line of 78-ac. tract in A. Floyd Sur. ..... T.D. 2,350 ft; drlg.

E. L. Hope and Joe Cole's No. 1 Mike August, 150 ft. from NE line, 165 ft. from NW line of tract ..... T.D. 1,530 ft; drlg.

F. L. Thompson's No. 1 C. A. Lawler, 5,400 ft. from NE line, 6,300 ft. from SE line of James Berry Sur. Spudded in.

DE WITT COUNTY

L. G. Wade's No. 1 fee, 6 miles S from Yoakum ..... T.D. 1,535 ft; drlg.

DUVAL COUNTY

Brooklyn Oil Co.'s No. 1 G. W. Sutherland, 2,100 ft. from W line, 1,928 ft. from S line of Sur. No. 187, G.B.&C.N. R.R. ..... T.D. 1,950 ft; drlg.

Al Buchanan's No. 1 Foster, 150 ft. from N and E lines of N of S of Sur. No. 270 ..... T.D. 1,930 ft; standing.

Clark & Miller's No. 1 R. Lopez, 150 ft. from N line, 330 ft. from W line of Sur. 141, S. C. I. Co., 8 miles SW from San Diego ..... T.D. 850 ft; drlg.

M. J. Coffey's No. 1 Parr, 691 ft. from W line, 270 ft. from N of NW cor. of Sec. 2, located in Sur. 27 ..... T.D. 1,700 ft; boiler blew up.

Coronado Oil Co.'s No. 1 Wood-Welder, 1,980 ft. from W line, 950 ft. from N line of Sur. No. 211 ..... T.D. 2,500 ft; P.B. to 2,160 ft.

DeLange & Snider's No. 1 Sanchez, 330 ft. from N and E lines of 80 acres in Blk. 35 of Sur. No. 197 ..... Spudded in.

Frank Gravis' No. 3 Schallert, 2,300 ft. from E line, 800 ft. from N line, Sur. 288 ..... T.D. 2,385 ft; tested dry; standing.

Huff et al's No. 1 A. Rosch 695 ft. from E line, 43 ft. from S line of Blk. 7, Sur. No. 457 ..... T.D. 200 ft.; spudded in.

G. G. Mortimer's No. 1 Peal, 330 ft. from S and W lines of Sur. No. 792 ..... T.D. 950 ft; drlg.

William B. Stewart's No. 3 Duval County Ranch Co., 300 ft. from E line, 330 ft. from W line of S half of SE, Sur. 363 ..... T.D. 182 ft; drlg.

Whisenant & Trenchard's No. 1 Duval County Land Co., 1,750 ft. from N line, 1,100 ft. from E line of Sur. No. 76 ..... T.D. 2,500 ft; abd.

Whisenant & Trenchard's No. 2 Duval County Ranch Co., 300 ft. from N and W lines of E ½ of SE ¼ of Sur. 76 ..... T.D. 20 ft; set surface csg.

Windsor Oil Co.'s No. 1 Peters, 330 ft. from E line, 1,994 ft. from S line of W ¼ of S (or 1,600 ft. to N 2,990 ft. to W of Sur.) No. 33 ..... T.D. 886 ft; drlg.

Wright & Wilson's No. 1 Wood-Welder, 6,150 ft. from N line, 7,300 ft. from W line of Sur. No. 102 ..... T.D. 150 ft; standing.

GOLIAD COUNTY

Gillett Oil Co.'s No. 1 Lackey & Weldon, 3,600 ft. NE of Humble test 3 years ago ..... Rigging up.

GUADALUPE COUNTY

J. E. Clark's No. 1 Fritz Drieboldt, 3,000 ft. from NW cor. and 1,900 ft. from N line of John Jones Sur. No. 1 ..... T.D. 800 ft; drlg.

HIDALGO COUNTY

Carl & Johnston's No. 1 Doughty, 187 ft. from S and E lines of Lot 11, Blk. 5 of Subd. of Indios Ranch Sur. in N. Hidalgo ..... T.D. 2,410 ft; drlg.

Maxwell & Young's No. 1 King, 175 ft. from N and E lines of Lot 8, Blk. 16, Alamo tract ..... T.D. 125 ft; drlg.

JIM HOGG COUNTY

D. C. DeWitt's No. 1 A. G. Lopez, 1,475 ft. from W line, 425 ft. from N line of Sur. No. 106 ..... T.D. 1,650 ft; standing.

R. F. Force's No. 1 Holbien, 150 ft. from N and W lines of Blk. 54, Sec. 9 of Holbien Sur. of Share 3 of Las Animas grant ..... T.D. 2,786 ft; setting csg.

Seaton A. Barnes, Jr.'s No. 1 R. Holbien, 320 ft. from W line, 340 ft. from S line, of Blk. 54, share 3, Los Animas tract ..... T.D. 1,200 ft; drlg.

KENDALL COUNTY

H. W. Martin's No. 1 Houston, in F. Wright Sur. ..... T.D. 585 ft; set csg.

KERR COUNTY

J. E. Anderson's No. 1 J. D. Witt, 1,320 ft. from N line, 1,320 ft. from W line of Sec. 1,933, in Hamilton Sur., 4 miles S of Center Point ..... T.D. 1,310 ft; drlg.

Eastland Oil Co.'s No. 1 Love, 1,100 ft. SW of Evans & Gant's No. 1 Love ..... T.D. 1,460 ft; reaming.

KLEBERG COUNTY

Harry Clark's No. 1 V. J. Kivlin, 360 ft. from E line, 400 ft. from S line of Sec. 39, Blk. 2, Kleberg Town & Improvement Co. Sur. ..... T.D. 1,600 ft; S.D.

Harris et al's No. 1 Dennett, 660 ft. from S line, 760 ft. from E line of Blk. 7, Sec. 38, Kleberg Town & Improvement Co. Sur. ..... T.D. 3,100 ft; S.D.

LA SALLE COUNTY

W. H. Wallace's No. 1 H. C. Yeager, 150 ft. from S and E lines of Sur. No. 95 ..... Set 60 ft. surface csg.

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LAVACA COUNTY

Plymouth Oil Co.'s No. 1 Fehrenkamp, SE cor. of 202.8-ac. tract in Moses Mitchell Sur. ..... Spudded in.

LEE COUNTY

Paton Bros.' No. 1-B Turner, 424 ft. from NW line, 375 ft. from NE line of 51.9-ac. tract in David Hudson Sur. ..... T.D. 6,375 ft; drlg.

LIVE OAK COUNTY

S. R. C. Oil Co.'s No. 1 Nichols, 6,400 ft. from SW cor. and 1,150 ft. NE at right angles in Simeon Ryan Sur. T.D. 715 ft; drlg.; topped Jackson at 440 ft.

Whitfield's No. 1 Terrell, David O'Boyle Sur., 5 miles NW from Three Rivers ..... Moving in.

McMULLEN COUNTY

Boysen & Hotchkin's No. 1 Hagist, 1,650 ft. from W line, 990 ft. from N line of 160-ac. tract in G. B. Kinney Sur. No. 3 ..... Moving in tools.

C. W. Gillette's No. 1 J. Dickinson 100 acres, 740 ft. from NW line, 750 ft. from NE line in Blk. B-29, A. Barrera Sur., 5 miles W from Whitsett ..... T.D. 694 ft; bailed dry; drilling deeper.

Donald Lain's No. 1 Two Rivers ranch, 300 ft. from E line, 1,200 ft. from S line of SE Sec. 25, Two Rivers Ranch Subd. of Live Oak County School land ..... Moving in rig.

C. B. Loftin's No. 2 E. H. Brown, 5,285 ft. from N line, 924 ft. from E line of 2,006-ac. tract in Sur. No. 64 ..... T.D. 768 ft; S.D.

C. R. Pope, Inc.'s No. 1 A. C. Miles, 300 ft. to E line, 2,375 ft. to S line, Sur. 149 ..... T.D. 2,100 ft; drlg.

S. R. C. and Sinclair Prairie's No. 2 LaChusa, 330 ft. from S and E lines of NW Sec. 36, Sur., 2 miles E from No. 1 ..... T.D. 1,865 ft; drlg.

Shumway et al's No. 1 Wulf, Sur. 4 miles SE from No. 2 Shiner, 1,730 ft. from S line, 167 ft. from W line of Steinhardt Sur. No. 190 ..... Rigged up; laying wtr. line.

Whitfield's No. 1 Jacob, 1,335 ft. from S line, 355 ft. from E line of NE Sec. 9, of Jacob ranch, T.&N.O. R.R. Sur., 1 mile NW from Jacob Pool ..... T.D. 280 ft; drlg.

SAN PATRICIO COUNTY

George W. Scruggs' No. 1 Collins, 1,040 ft. from NE line, 700 ft. from SE line of Blk. 36, E. J. McGloin Sur. ..... T.D. 2,756 ft; changing to heavier rig.

STARR COUNTY

S.&B. Oil Co.'s No. 1 Crown Brick & Tile Co., 1,800 ft. S of State Highway No. 4 and 580 ft. from W line of Porcion 87, near La Puerta ..... T.D. 4,522 ft; set csg.; waiting on cmt.

Chiquita Oil Co.'s No. 1 Starr County Cattle Co., 341 ft. from W line, 371 ft. from S line of Share 40, Partition of Porcions 88 and 89 ..... T.D. 618 ft; drlg.

F. R. Cooper's No. 1 J. M. Martinez, 150 ft. to S and E lines of A.B.&M. Sur. No. 135 ..... T.D. 2,680 ft; drlg.

F. Davenport's No. 2 fee, 660 ft. from SE line, 350 ft. from SW line, Sur. 32 of C. O. Newman Subd. of El Benadito grant ..... T.D. 500 ft; standing.

Dawson et al's No. 5 Margo, 1,000 ft. from W line, 5,500 ft. from S line of Share 2-B, Por. No. 70, jurisdiction Mier ..... T.D. 500 ft; standing.

E. H. Stickney's No. 1 H. Gonsales, 300 ft. from E line, 3,166 ft. from S line of H.E.&W.T. Sur. 239.... T.D. 1,100 ft; drlg.

San Oil Co.'s No. 1 Guerra, 1,140 ft. from W line, 6,985 ft. from S line of 1,360-ac. tract in Share 14-B of Las Quevitasb grant ..... Derrick.

Goodwain & Yantis' No. 1 Seabury, 150 ft. from S and W lines of Sec. 107, Share No. 1, Porcion No. 107.... T.D. 745 ft; drlg.

TRAVIS COUNTY

F. Fuch's No. 1 Rummell, 800 ft. to S line, 150 ft. to E line of 169-ac. tract in Peter Cartwright Sur. ... T.D. 65 ft; S.D.

UVALDE COUNTY

Frank A. Brown's No. 1 J. A. Milliken, 1,800 varas from W line which is Sabinal River, and 108 varas from S line of Antonio Cruz Sur. No. 333 ..... T.D. 100 ft; drlg.

Evans & Thompson's No. 1 Farris, 400 ft. from S and W lines of 535-ac. tract near center of John J. Hammond Sur. ..... T.D. 300 ft; changing rigs.

WEBB COUNTY

Edwin M. Jones' No. 2 Callaghan, 330 ft. from S and E lines of C.C.S.D.&R.G.N.G. R.R. Sur. No. 1,211.... Rigging up.

J. W. Edwards' No. 1 Volpe Bros., 150 ft. from E line of NE SW Sec. 17, Blk. 2, C.C.S.D.&R.G.N.G. Sur., 30 miles SE from Cactus ..... T.D. 1,325 ft; drlg.

J. W. Edwards' No. 1 Boltz, 1,170 ft. from S and E lines of Sec. 58, Blk. 2, C.C.S.D.&R.G.N.G. Ry. Sur... Rigging up.

Gibson et al's No. 1 Smith, 150 ft. from NE line, 300 ft. from NW line of Blk. 5, Sur. No. 1,102..... T.D. 2,204 ft; abd.

O. W. Killam's No. 1 V. Pena, Sur. Ratones ranch Dolores Subd. Borrego grant ..... Spudded in.

Will Ohlhausen's No. 1 Moses Jones, 273 varas from E line, 516 varas from S line of 100-ac. tract in Sur. No. 1,640 ..... T.D. 850 ft; drlg.

Seagraves & Salsbury's No. 2 Gates, 330 ft. from N and E lines of SE Sec. 64, Blk. 1 of C.C.S.D.&R.G.N.G. Sur. ..... T.D. 1,586 ft; abd.

Shankle & Roche's No. 1 W. W. Stall, 660 ft. from N and W lines of NW NW of No. 37 Sur., 11 miles N from Mirando City ..... T.D. 2,210 ft; coring.

WILSON COUNTY

Sexton Pet. Co.'s No. 1 Joe Gutzeit (1,032-ac.), 150 ft. from W line, 150 ft. from S line of road of F. Flores No. 18 Sur. ..... T.D. 175 ft; drlg.

ZAPATA COUNTY

Hamilton, Brower & Crow's No. 1 Slator, 2,111 ft. from SW line, 1,980 ft. from SE line of Blk. 1, Subd. of Slator ranch in J. V. Borrego grant ..... T.D. 1,278 ft; drlg.

Circle W. Oil Co.'s No. 1 M. Garza est., 623 ft. from NW line and 699 ft. from SW line of Blk. 20, C. A. Douglas Subd. of Charco de la India grant ..... Rigging up.

O. W. Killam's No. 1 V. Pena, 1,350 ft. from N line, 4,790 ft. from W line of Ratones ranch subd. of Borrego grant ..... T.D. 725 ft; drlg.

Sarah Poppas' No. 1 Juan V. Cueller, Jr., 150 ft. from NE and SE lines of Blk. 3, Sur. 2 of Poppas Subd. of Por. 34 ..... T.D. 615 ft; drlg.

A. C. Savey et al's No. 1 Flores, 150 ft. from NW line, 206 ft. from NE line of Blk. 3, Share 1 of P. A. Richer Subd. of Porcion No. 36 ..... T.D. 2,395 ft; testing sand.

Stevens & Brown's No. 1 Alexandro Garcia, 660 ft. from SW line, 660 ft. from NW line of Blk. 6, Stevens & Brown Subd. of W 700 acres, Charco Redondo grant, A. Garcia tr. 16 miles SE of Zapata ..... T.D. 300 ft; drlg.

A. H. Wray's No. 1 Gopher Trust Est., in Fullerton Subd. of Share 8 of J. V. Borrego grant ..... T.D. 370 ft; reaming to test.

HAVALA COUNTY

Zavala O. & G. Co.'s No. 1 Gates, 1,320 ft. from N line, 1,320 ft. from E line of Hooper & Wade Sur. No. 13 .T.D. 5,538 ft; drlg.

## Southwest Texas Proven Areas

**Week Ending June 10**

HILBIG POOL—BASTROP COUNTY

| Company, well, farm name, section and block— | Remarks. |
|---|---|
| Humble O. & R. Co.'s No. 3 Wilhelm, 1,370 ft. from SW line, 245 ft. from NW line of 119.5-ac. tract in S. Wolfensbarger Sur. ..... | T.D. 2,607 ft; comp. 100 bbls. hrly. |


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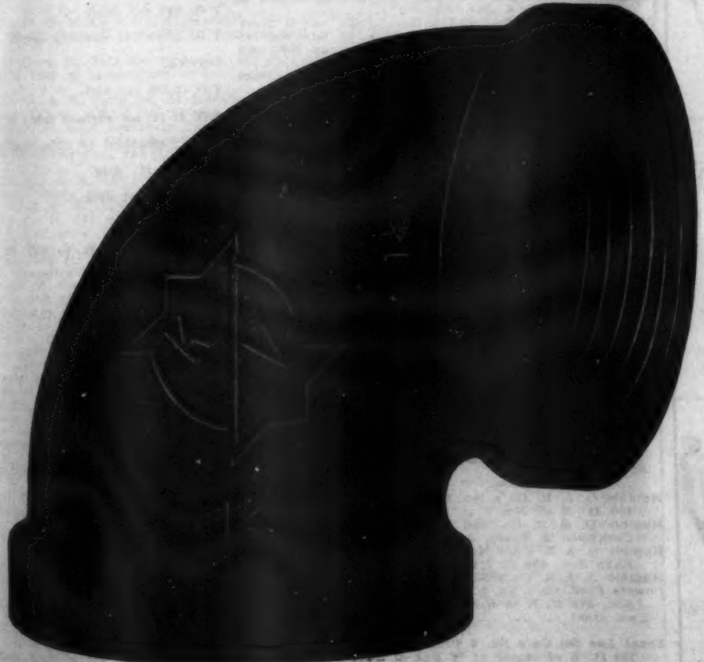

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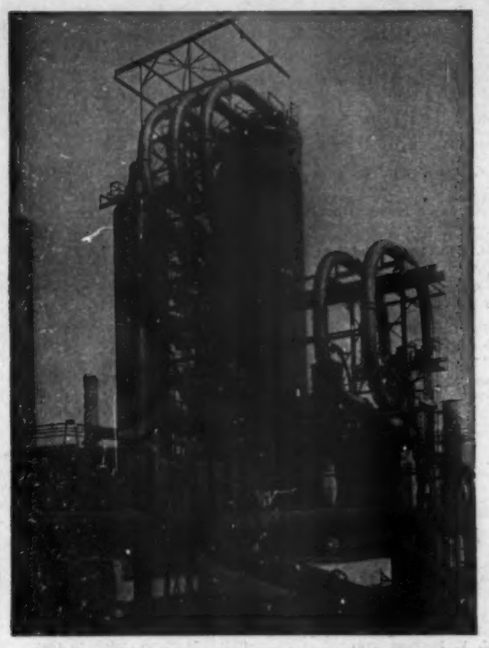

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Humble O. & R. Co.'s No. 4 Wilhelm, 850 ft. from E line, 466 ft. from S line of Ed Wilhelm 222-ac. tract in Mayes Sur. ..... Set surface csg.

RIDDLE POOL—BASTROP COUNTY

Floyd Dodson's No. 1 Duran, 45 acres ..... Derrick and rigging up.
Marts & Beavens' No. 1-A Riddle (202-ac.) ..... Rigging up; some maps show Barnard tract.
Marts & Beavens' No. 2 Riddle, 400 ft. from NW line, 2,300 ft. from SW line of John Maxmilian Sur. ..... T.D. 2,149 ft; comp. gauged 72 bbls. hourly.
Ogden & Reed's No. 1 Talley, 150 ft. from NW line, 1,350 ft. from SW line of John Maxmilian Sur. ..... T.D. 2,124 ft; P.B.

TULETA POOL—BEE COUNTY

Grisham et al's No. 1 Rapp & Hatch, 1,700 ft. from N line, 2,640 ft. from E line, Sec. 12 of Rageley's Subd. of Uranga grant ..... Spudded in.

ECKERT POOL—BEXAR COUNTY

J. F. Harrison's No. 1 F. Gembler, 150 ft. from NW line, 460 ft. from NE line of 88-ac. tract in J. Montez Sur. ..... Spudded in.

NORTH GOVERNMENT WELLS POOL—DUVAL COUNTY

Central Producers, Inc.'s No. 7 Tuck & Johnson, 330 ft. from S and W lines of SE SW of Sur. No. 42 ..... Rigging up.
Hester Bros.' No. 1 fee, 330 ft. from S and E lines of NE of Sur. No. 47 ..... Rigging up.
Navarro Oil Co.'s No. 19 Hahl, 990 ft. from S and E lines of W½ of Sur. No. 360 ..... T.D. 2,315 ft; swabbing in.
Southwest Drlg. Co.'s No. 9 Wendt, 990 ft. from S and E lines of SE of Sur. No. 43 ..... T.D. 2,272 ft; set csg.; W.O.C.
Sun Oil Co.'s No. 3 Weiderkehr, 990 ft. from S line, 330 ft. from E line of Sur. No. 359 ..... T.D. 2,232 ft; W.O.C.
The Texas Co.'s No. 5 Wendt, 990 ft. from S and E lines of N ½ of NW¼ of Sur. No. 42 ..... T.D. 2,254 ft; comp. 66 bbls. hrly.

SARNOSA POOL—DUVAL COUNTY

Sarnosa Oil Corp.'s No. 7 Weil, 590 ft. SE of No. 6 .... T.D. 2,435 ft; abd.
Sun Oil Co.'s No. 3 Cano, 330 ft. from NE and SE lines of Sur. No. 576 ..... Rigged up.

PETERS POOL—DUVAL COUNTY

Shasta Oil Co.'s No. 4 Peters, 990 ft. from E line, 330 ft. from S line of Strip Sur. No. 65 ..... Spudded in.

SANDIA POOL—JIM WELLS COUNTY

Crude Oil Royalty Co.'s No. 1 Allen, 150 ft. from N and E lines of Blk. 2, Subd. of Wade ranch ..... T.D. 2,643 ft; set csg.

JACOB POOL—McMULLEN COUNTY

Loma Oil Co.'s (Jacob, Buzzini & Pickett) No. 12-A Jacob, 1,212 ft. from N line, 571 ft. from E line of W. H. Jacob Sur. No. 10 ..... T.D. 780 ft; drlg.
Longhorn Oil Co.'s No. 2-A C. T. Lark, in E. W. B. Scrugham Sur. ..... T.D. 1,020 ft; reemtng. csg.

WENTZ POOL—McMULLEN COUNTY

V. G. Schimmel's No. 2 H. F. C. Wulf, 150 ft. from S line, 650 ft. from W line of W of NW of Sec. 72, Two Rivers Ranch ..... Rigged up.

KING POOL—NUECES COUNTY

John F. Camp's No. 1 King, 150 ft. from N and W lines of E½ of Sec. 29, of Richard King Subd. ..... T.D. 500 ft; set surface csg.

SAXET FIELD—NUECES COUNTY

C.N.T. Co.'s No. 1 L. M. Vance, 330 ft. from E line, 1,320 ft. from S line of 255-ac. tract in Sur. 402 .. T.D. 5,012 ft; S.D.
Gibson Oil Corp.'s No. 2 Rand Morgan, 1,320 ft. from N line, 330 ft. from E line of lease ..... T.D. 5,180 ft; S.D.
Houston Oil Co.'s No. 1 McGregor ..... T.D. 4,874 ft; comp. 100 bbls. dly.
Gulf Port Oil Co.'s No. 3 Frank Bliss, 1,699 ft. to N line, 350 ft. to E line of 235-ac. tract in J. W. Stevens Sur. No. 406 ..... T.D. 5,616 ft; standing.
Gulf Port Oil Co.'s No. 3 Humphreys, 115 ft. from N line, 330 ft. from W line of lease (8 offset to No. 1 Gibson, Rand Morgan Sur.) ..... T.D. 5,028 ft; abd.
Gulf Port Oil Co.'s No. 1 Rand Morgan, 330 ft. from N and E lines of 80-ac. lease ..... T.D. 4,905 ft.; S.D. for repairs.

MATHIS POOL—SAN PATRICIO COUNTY

Geo. W. Scruggs' No. 1 Collins ..... T.D. 2,756 ft.; changed to heavier rig.

LOS OLMOS POOL—STARR COUNTY

Hooks & Weaver's No. 15 Kelsey Bass, 200 ft. from W line, 150 ft. from S line, NW SE Sec. 6, Pors. 75, 76, 77, jurisdiction Camargo ..... T.D. 1,852 ft; drlg.
Hooks & Weavers' No. 14-A2 Kelsey Bass, 200 ft. from W line, 250 ft. from S line of E 80 acres of NE SW Sec. 4, Pors. 75, 76, 77, Camargo ..... Drlg. 1,268 ft; moving in larger rig.

RIO GRANDE CITY POOL—STARR COUNTY

O. V. McIntyre's No. 1 Hinojosa, 120 ft. from E line, 930 ft. from N line of Share 36 "A," Porcion 80, Sur., jurisdiction Camargo ..... T.D. 1,509 ft; abd.

LAUREL POOL—WEBB COUNTY

Cole, Wise & Laurel's No. 3 Garcia-Villareal, 450 ft. from N line, 150 ft. from E line of Blk. 7, Sur. No. 1,100 ..... T.D. 2,218 ft; abd.
Montex Oil Co.'s No. 1 Laurel, 150 ft. from S and E lines of Blk. 4, Sur. No. 270 ..... T.D. 290 ft; drlg.
Montex Oil Co.'s No. 1 Caltex Royalty Co., 450 ft. from N line, 150 ft. from E line of Blk. 13, Sur. No. 768 T.D. 2,145 ft; running pipe.
Montex Oil Co.'s No. 1 Laurel, 150 ft. from NW and SW lines of Blk. 1, Sur. No. 719 ..... Derrick.
Reward Oil Co.'s No. 1 Garcia-Villareal, 350 ft. from N and W lines of Blk. 6, Sur. No. 1,100 ..... T.D. 2,286 ft; abd.
Shankle & Newton's No. 1 S. Benavides, 330 ft. from S and E lines of Blk. 13, in No. 2,272 Sur. ..... T.D. 40 ft; set surface csg.; W.O.C.
South Texas Oil Co.'s No. 7 Laurel, 320 ft. from N and W lines of Blk. 13, Sur. No. 270 ..... Comp.; swabbed 50 bbls. daily.
South Texas Oil Co.'s No. 7 Laurel, 320 ft. from N and W lines of Blk. 13, Sur. No. 270 ..... T.D. 350 ft; drlg.
Texas Unity Co.'s No. 1 Yeager, 1,325 ft. from N and W lines of A.B.&M. Ry. Sur. No. 53 ..... T.D. 1,112 ft; drlg.

MOCA POOL—WEBB COUNTY

Moca Oil Co.'s No. 4 Duval County Ranch Co., 810 ft. from N line, 130 ft. from W line of Blk. 22, Share 8, Zapata County School Land ..... T.D. 1,214 ft.; P.B. to 891 ft.
Will Ohlhausen's No. 1 Moses Jones, 273 varas from E line, 516 varas from S line of 100-ac. tract in Sur. No. 1,640 ..... T.D. 850 ft; drlg.

ESCOBAS POOL—ZAPATA COUNTY

Lefevre et al's No. 1 M. Garza Hrs., 330 ft. from NW and SW lines of Blk. 53, C. A. Douglas Subd., Zerro ranch, Comitas Grant Sur. ..... T.D. 1,306 ft; drlg.
The Texas Co.'s No. 38 Measles, 533 ft. from SE line, 16,681 ft. from SW line of Cerrito Blanco grant .... T.D. 650 ft; drlg.

MIRANDO VALLEY POOL—ZAPATA COUNTY

J. W. Edwards' No. 1 R. Hinnant, 150 ft. from SE lines of Blk. 8, Sur. No. 116 ..... T.D. 150 ft; drlg.

## Gulf Coast Fields and Wildcats

(Continued from Page 50)

Humble O. & R. Co.'s No. 8 George, J. Rabb Sur., 1,300 ft. E of No. 7 ..... Set screen 5,410 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 19-A Lockwood & Sharp, J. Rabb Sur. ..... Drlg. shale 4,675 ft.
Humble O. & R. Co.'s No. 14-B Lockwood & Sharp, J. Rabb Sur., 500 ft. from E line, 302 ft. from S line. T.D. 5,279 ft.; cmtd. csg.
Humble O. & R. Co.'s No. 4 Meyers, J. Rabb Sur. ..... T.D. 5,300 ft.; cmtd. csg.
Powers Prod. Co.'s No. 1 Fred Weisse, Samuel Kennedy Sur., 300 ft. N of S line in center E and W of 10-ac. tract ..... No report.

HIGH ISLAND—GALVESTON COUNTY

Mount Lee Oil Co.'s No. 3 Broussard, M. Dunman Sur., 150 ft. E of center of W line of tract ..... T.D. 6,475 ft; comp. 240 bbls.; ¾-in. choke.

Yount Lee Oil Co.'s No. 1-B Broussard & Orme, 126 ft. E of center of W line of M. Dunman Sur. ..... Rigging up.
Yount Lee Oil Co.'s No. 34 Cade, N. Fitzsimmons Sur., 856 ft. S of No. 33 ..... Comp. 160 bbls.; ¾-in. choke; T. D. 5,785 ft.
Yount Lee Oil Co.'s No. 35 Cade, N. Fitzsimmons Sur., 600 ft. S of No. 34 ..... Shale 5,510 ft.
Yount Lee Oil Co.'s No. 36 Cade, N. Fitzsimmons Sur., 600 ft. from S line, 240 ft. E of No. 34 ..... Drlg. gumbo 1,010 ft.
Yount Lee Oil Co.'s No. 16 Smith, Martin Dunman Sur., 300 ft. SE of No. 12 and parallel to land line ..... Sand 5,732 ft.
Yount Lee Oil Co.'s No. 17 Smith, M. Dunman Sur., 300 ft. SW of No. 14 ..... Drlg. 800 ft.

**ARIOLA—HARDIN COUNTY**

Republic Prod. Co.'s No. 3 Ariola fee, Ariola Sur., 400 ft. S of No. 1 ..... Rigging up to pump 4,320 ft.

**BATSON—HARDIN COUNTY**

Danciger O. & R. Co.'s No. 1 Hooks, 95 ft. S, 150 ft. W of NE cor. of Strip 13, Donoghue Sur. ..... Sand and shale showing gas 4,627-38 ft.

**PIERCE JUNCTION—HARRIS COUNTY**

Rio Bravo Oil Co.'s No. 11-A Settegast (W.O.), J. Kopman Sur., 650 ft. from N line, 350 ft. from E line of lease ..... Drlg. broken shale and lime 4,738 ft.

**TOMBALL—HARRIS COUNTY**

Humble O. & R. Co. and Magnolia Pet. Co.'s No. 1 Fritz Kobs, J. N. Hooper Sur., 1,645 ft. S, 330 ft. W, of NE cor. of lease ..... Spudded.
Humble O. & R. Co. and Magnolia Pet. Co.'s No. 1 G. W. H. Martens, lower W. Hurd Sur., center of 320-ac. tract ..... Rig.
Humble O. & R. Co. and Magnolia Pet. Co.'s No. 1 Herbert Reid, Chauncy Goodrich Sur. ..... Building derrick.
Magnolia Pet. Co. and Humble O. & R. Co.'s No. 1 Wm. Rudel (63 acres), Joseph House Sur., 350 ft. out of SW cor. of lease ..... Spudded.
Magnolia Pet. Co and Humble O. & R. Co.'s No. 1 Martens, Joseph House Sur., 600 ft. from W line and 5,600 ft. from S line of tract ..... Drlg. shale 6,900 ft.
Polk Drlg. Co.'s No. 1 Malcomson, A. Schouten Sur., 500 ft. from N line and 1,800 ft. from E line of 283-ac. Daniel's tract ..... Drlg. sticky shale 1,866 ft.
H. H. Sloan's No. 1 Peden, 750 ft. from N line and 1,000 ft. from W line of John Brock Sur. ..... Drlg. sand and shale 5,045 ft.

**SARATOGA—HARDIN COUNTY**

Rio Bravo Oil Co.'s No. 98 Jordit, Jordit Sur. ..... Rig standing.
Rio Bravo Oil Co.'s No. 97 Jordit, Jordit Sur. ..... Sand 945-77 ft; set 24¼ ft. of 4¾-in. screen; bailing.

**HANKAMER—LIBERTY COUNTY**

Gulf Prod. Co.'s No. 1 Crowe & Jacobs, H.&T.C. Sur., Sec. 21, 900 ft. from W line, 1,700 ft. from S line of N 320 ac. of section ..... Drlg. sticky shale 6,135 ft.

**HULL—LIBERTY COUNTY**

W. B. Flynn's No. 1 Cantor, Jesse DeVore Sur., 150 ft. E and 100 ft. N of SE cor. of tract ..... Spudded.
Mirmar Oil Co.'s No. 1 Hannah, Jesse DeVore Sur., 750 ft. from E line, 250 ft. from N line of 10-ac. tract. Drlg. shale 2,450 ft.
The Texas Co.'s No. 3 Hannah (W.O.), Jesse DeVore Sur. ..... T.D. 5,117 ft; sidetracking out of liner 4,877-81 ft.

**CONROE—MONTGOMERY COUNTY**

Bishop Oil Corp.'s No. 1 Rhodes, W. S. Rhodes Sur., 466 ft. from E line in center N and S of 25.8-ac. tract ..... Comp. 75 bbls. per hour; ½-in. choke, 5,117 ft.
H. M. Crighton's No. 1-A South Tex. Dev. Co., T.&N.O. Sur. No. 5, center of 16.31-ac. tract ..... Comp. 90 bbls. per hour; ½-in. choke, 5,120 ft.
E. S. Craft's No. 1 Granger, T.&N.O. Sur. No. 14, 467 ft. out of NW cor. of 77-ac. lease ..... Coring sand and shale 5,057 ft.
Gulf Coast Drlg. & Prod. Co.'s No. 8-B Keystone Mills, A. Steele, 3,771 ft. from E line, 467 ft. from S line. Drlg. shale 2,895 ft.
Harrison & Abercrombie's No. 5 Ben Wiggins, T.&N. O. Sur. No. 6, 475 ft. from W line, 470 ft. from S line of lease ..... Drlg. shale 2,210 ft.
Hooper-Rutherford's No. 4 Hooper, I.&G.N. Sur. No. 649. Drlg. 1,625 ft.
Houston Oil Co.-Tide Water Oil Co.'s No. 3 Dobbins, Ransom House Sur., 425 ft. from N line, 2,549 ft. from W line of lease ..... Drlg. sand and lime 4,936 ft.
Houston Oil Co.-Tide Water Oil Co.'s No. 6 Hamman, C. B. Stewart Sur., 600 ft. from S line and 1,188 ft. from W line ..... Comp. 90 bbls. per hour; ½-in. choke, 5,132 ft.
Humble O. & R. Co.'s No. 12-A Cartwright, John Davis Sur., 512 ft. from S line, 300 ft. from E line of lease. Comp. 93 bbls. per hour; ½-in. choke, 5,144 ft.
Humble O. & R. Co.'s No. 7 Emory, W.C.R.R. Sur. No. 13, 1,020 ft. N of No. 3 ..... Spudded.
Humble O. & R. Co.'s No. 11 Madeley, Ransom House, 1,398 ft. from N line, 466 ft. from E line ..... Comp. 79 bbls. per hour; ½-in. choke, 5,124 ft.
Humble O. & R. Co.'s No. 23 Moore, 466 ft. S of center of N line of Lemuel Smith Sur. ..... Comp. 75 bbls. per hour; ½-in. choke, 5,125 ft.
Humble O. & R. Co.'s No. 36 Madeley, Ransom House Sur., 933 ft. NE of No. 31 and 570 ft. NW at right angles to most southerly line of lease ..... Drlg. sand and shale 1,002 ft.
Humble O. & R. Co.'s No. 34 South Tex. Dev. Co., Theo. Slade Sur., 933 ft. NE of No. 33 ..... Comp. 78 bbls. per hour; ½-in. choke, 5,169 ft.
Humble O. & R. Co.'s No. 35 South Tex. Dev. Co., Theo. Slade Sur., 1,095 ft. NE of No. 34 ..... Drlg. shale 903 ft.
Humble O. & R. Co.'s No. 1 Stream, C. A. West Sur., 720 ft. N, 620 ft. E of Navarro Oil Co.-Standard's No. 1 Meyers ..... Drlg. shale 3,995 ft.
Humble O. & R. Co.'s No. 3 Wiggins & Athey, L. Smith Sur., 500 ft. from SW line, 300 ft. from SE line.... Cmtd. csg. 5,080 ft.
W. M. Massie's No. 4 Hooper, F. Hooper Sur., 2,404 ft. from N line in center E and W ..... Drlg. sand 5,095 ft.
Navarro Oil Co. and Fariyn Oil Co.'s No. 1-B House, W.C.R.R. Sur., No. 14, 676 ft. from W line and 330 ft. from S line of 20 acres ..... Drlg. shale 2,620 ft.
Neversuch Oil Co.'s No. 5 South Tex. Dev. Co., T.&N. O. Sur. No. 5, 578 ft. from N line and 336 ft. from E line ..... Drlg. shale 3,825 ft.
Republic Prod. Co.'s No. 1 Dudley, C. B. Stewart Sur., 466 ft. from N line and 466 ft. from E line of lease. Drlg. shale 2,425 ft.
Standard Oil Co. of Kansas' No. 1-B Madeley, Ransom House Sur., 400 ft. from N line, 300 ft. from W line ..... Sand 5,120 ft.
Standard Oil Co. of Kansas' No. 6 Smith & Ratcliff, W. C. Rhodes Sur., 316 ft. from S line, 390 ft. from E line ..... Comp. 90 bbls. per hour; ½-in. choke, 5,125 ft.
Strake Pet., Inc.'s No. 1 Geo. Hamman, C. B. Stewart Sur., 467 ft. out of SW cor. ..... Comp. 60 bbls. per hour; ¾-in. choke, 5,100 ft.
Sun Oil Co.'s No. 1 Clark, Wilson Strickland Sur., 400 ft. from N line, 467 ft. from E line ..... Cmtd. csg. 5,041 ft.
Sun Oil Co.'s No. 2 B. E. Jones, Strickland Sur., 400 ft. from S line, 467 ft. from E line ..... Sand 5,095 ft.
Sun Oil Co.'s No. 7 Foster, John Bricker Sur., 933 ft. W of No. 3 and 467 ft. from N line ..... Drlg. shale 1,295 ft.
Sun Oil Co.'s No. 9 Foster, John Bricker Sur., 1,134 ft. NE of No. 4 ..... Drlg. shale 4,320 ft.
Sun Oil Co.'s No. 5 South Tex. Dev. Co., T.&N.O. Sur. No. 5, 164 ft. from N line in center E and W ..... Comp. 72 bbls. per hour; ½-in. choke, 5,130 ft.


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The Texas Co.'s No. 2 Dudley, C. B. Stewart Sur., 466 ft. out of NW cor. of lease ..... Drlg. shale 2,145 ft.
The Texas Co.'s No. 4 Dudley, C. B. Stewart Sur., 466 ft. out of SE cor. of lease ..... Gumbo 1,370 ft; cmtd. 10¾-in. csg.
The Texas Co.'s No. 8 Rhodes, 330 ft. S of S line of C. A. West Sur., and 330 ft. W of W line of John Massey Sur. in W. S. Rhodes Sur. ..... Drlg. hard sand rock 1,253 ft.
The Texas Co.'s No. 14 Rhodes, W. S. Rhodes Sur., 1,960 ft. from W line, 1,470 ft. from S line ..... T.D. 5,010 ft; drill pipe stuck.
Tide Water Oil Co.'s No. 3 Granger, T.&N.O. Sur. No. 14, 467 ft. from N line and 932 ft. E of No. 1 ..... Rigging up.
Tide Water Oil Co.'s No. 8 Dean, W. C. C. Lynch Sur., 467 ft. out of SW cor. of lease ..... Set screen 5,136 ft.
Tide Water Oil Co.'s No. 4 Krohn, S. H. Bryan Sur., 1,313 ft. from N line, 467 ft. from E line ..... Comp. 92 bbls. per hour; ½-in. choke, 5,126 ft.

**REFUGIO—REFUGIO COUNTY**

United Prod. Corp.'s No. 1-A M. F. Lambert, 466 ft. from N line, 823 ft. from W line of Hews & Brown Sur. ..... No report.

**HUMBLE—HARRIS COUNTY**

Rosenthall & Hefferman's No. 1 Westheimer, John B. Jones Sur., 73 ft. due W of Rio Bravo Oil Co.'s No. 1 Westheimer, Blk. 16 ..... No report.
The Texas Co.'s No. 22 House (W.O.), M. Owens Sur. ..... T.D. 5,057 ft; drlg. sidetracked hole, hard sand and shale, 4,415 ft.

**MYKAWA—HARRIS COUNTY**

Frederick & Coffelt's No. 1 Irwin, Wm. Lovett Sur., 300 ft. S and E from J. A. Platt vs. G.C.&S.F. conflict cor. of 5,959-ac. tract, W. B. Walker Sur. ..... Drlg. 700 ft.

**PORT NECHES—ORANGE COUNTY**

The Texas Co.'s No. 1 Orange Nat. Bank, 150 ft. out of NW cor of lease, Jacob Beaumont Sur. ..... Drlg. gumbo 2,240 ft.

**GRETA—REFUGIO COUNTY**

E. H. Buckner's No. 1 J. M. O'Brien, 150 ft. S of N line of N. S. Crunk Sur. and 150 ft. NW of St. L.&B. M. R.R. ..... Drlg. sand and shale 1,425 ft.
Greta Oil Corp.'s No. 3 J. M. O'Brien, E. H. Winfield Sur., 150 ft. out of SW cor. of 25-ac. tract ..... Spudded.
Luling O. & G. Co. and Morgan's No. 1 J. M. O'Brien, N. S. Crunk Sur., 150 ft. out of most easterly cor. of 50-ac. tract ..... Derrick.
M. C. McGeehee's No. 1 O'Brien, 2,500 ft. W of most easterly E line and 3,150 ft. N of most southerly S line of E. H. Winfield Sur. ..... Drlg. shale and lime 2,805 ft.
Joe E. Smith's No. 1 O'Brien, 1,500 ft. N of most southerly S line and 1,800 ft. E of most westerly E line of E. H. Winfield Sur. ..... Derrick.
Vidauri Oil Co.'s No. 1 Welder, 330 ft. S of N line of James T. McGrew Sur., and 700 ft. W of R.R. .... Drlg. shale 356 ft.

## SOUTH LOUISIANA FIELDS

**ASSUMPTION PARISH**

Barnsdall Oil Co.'s No. 1 Williams, 330 ft. out of NE cor. Sec. 38-14s-14e ..... Drlg. gumbo 1,510 ft.

**BEAUREGARD PARISH**

Burnham & Johnson's No. 1 Long Bell, 725 ft. S, 155 ft. E of NW cor. NW NW Sec. 34-2s-8w ..... Sand and shale 3,076 ft.

**CALCASIEU PARISH**

Union Sulphur Co.'s No. 1 Stout, 1,237 ft. N, 1,167 ft. W of SE cor. Sec. 36-3s-8w ..... Drlg. shale 4,255 ft.

**CAMERON PARISH**

Southern Sulphur Co.'s No. 1 Gulf of Mexico, 330 ft. S, 338 ft. E of SW cor. Sec. 29-15s-10w ..... Drlg. gumbo 800 ft.
The Texas Co.'s No. 8 State-Calcasieu Lake, 14,255 ft. W, 3,270 ft. N of NE cor. Sec. 1-14s-9w ..... Spudded.

**CAMERON MEADOWS—CAMERON PARISH**

Pure Oil Co.'s No. 4 Alliance Trust Co., 578 ft. from N line and 1,931 ft. from W line of Sec. 34-11s-1w .. Rig.

**CHOCTAW—IBERVILLE PARISH**

Standard Oil Co.'s No. 4 Myrtle Grove, 2,350 ft. S, 150 ft. W of NE cor. NW Sec. 52-9s-11e ..... No report.

**DARROW—ASCENSION PARISH**

Rio Bravo Oil Co.'s No. 1 Gumbel, 4,000 ft. W, 250 ft. S of NE cor. of S. Gumbel & Co. tract, Sec. 33-10s-2e. Standing 6,052 ft.

**GUEYDAN—VERMILLION PARISH**

Pure Oil Co.'s No. 5 Alliance Trust Co., 525 ft. from N line, 580 ft. from W line of Sec. 34-11s-1w ..... Drlg. sand and gravel 455 ft.
Pure Oil Co.'s No. 3 Mulvey, Sec. 34-11s-1w, 1,515 ft. from N line, 1,150 ft. from E line of tract ..... Salt 5,046-5,410 ft.; P.B. to 4,870 ft.; tested S.W.; pulling screen.

**LOCKPORT—CALCASIEU PARISH**

Magnolia Pet. Co.'s No. 8 State Bayou D'Inde, 385 ft. E, 570 ft. N of SW cor. NE Sec. 8-10s-9w ..... Drlg. sand 3,620 ft.

**BLACK BAYOU—CAMERON PARISH**

Shell Pet. Corp.'s No. 15 Watkins, 1,890 ft. from N line and 680 ft. from E line of Sec. 13-12s-12w ..... Spudded.

**HACKBERRY—CAMERON PARISH**

Calcasieu Oil Co.'s No. 2 Hansen, Sec. 14-12s-10w, 400 ft. W, 300 ft. S of No. 1 ..... Comp. 60 bbls. per hour; ½-in. choke, 6,076 ft.
Gulf Ref. Co.'s No. 11 Irwin, Sec. 13-12s-10w, 200 ft. N and 100 ft. E of No. 9 ..... Rigging up to pump, 3,000 ft.
Wilfred Lahey's No. 1 Aroux, center 2-ac. tract, Sec. 36-12s-10w ..... No report.
Massert & Cruse's No. 1 Sutton, 656 ft. S, 325 ft. E of NW cor. Sec. 26-12s-10w ..... Drlg. shale 4,900 ft.
Pop Oil Co.'s No. 1 Yount Lee, 3,996 ft. W and 100 ft. N of SE cor. Sec. 19-12s-10w ..... Spudded.
Union Sulphur Co.'s No. 6 Gulf Land-Humble Lease, Sec. 11-12s-10w, 245 ft. W and 210 ft. S of No. 4 ... Drlg. shale 4,520 ft.

**IOWA—CALCASIEU AND JEFF DAVIS PARISHES**

Magnolia Pet. Co.'s No. 1 Bowman, 330 ft. out of NE cor. 8¼ NW Sec. 12-9s-7w ..... Drlg. gumbo 1,233 ft.
Magnolia Pet. Co.'s No. 1 Gillson, 330 ft. out of SE cor. NE Sec. 12-9s-7w ..... Drlg. hard sandy shale 6,381 ft.
Magnolia Pet. Co.'s No. 1 Willett, 330 ft. N and E out of SW cor. NW Sec. 7-9s-6w ..... Cmtd. 9⅝-in. csg. 5,506 ft.
Shell Pet. Corp.'s No. 4 Pontenot, Sec. 7-9s-6w, 330 ft. out of NW cor. of lease ..... Drlg. shale and lime 4,818 ft.
Shell Pet. Corp.'s No. 4 Heyd, 2,122 ft. W, 1,310 ft. S of NE cor. Sec. 13-9s-7w ..... Drlg. sandy shale 5,410 ft.
Shell Pet. Corp.'s No. 2 Stafford, 330 ft. from W line and 265 ft. from S line of NW Sec. 15-9s-6w ..... Drlg. surface clay 112 ft.

**JEFFERSON DAVIS PARISH**

Humble O. & R. Co.'s No. 2 Devilbiss, 1,850 ft. S, 250 ft. W of NE cor. Sec. 14-9s-4w ..... Drlg. shale and lime 6,559 ft.

**JENNINGS—ACADIA PARISH**

Yount Lee Oil Co.'s No. 13 Houssierre-Latrielle, Sec. 47-9s-2w, 300 ft. SW of No. 5 and 400 ft. NE of No. 4 ..... Abd.; T.D. 5,250 ft.

**LA FOURCHE PARISH**

Southern Sulphur Co.'s No. 1 State-Bay Marchand, 612 ft. E, 710 ft. S of SW cor. Sec. 20, in Sec. 20-22s-22e. Spudded.

**PORT BARRE—ST. LANDRY PARISH**

The Texas Co.'s No. 15 Botney Bay, 100 ft. out of most southerly NE cor. of lease, Sec. 4-6s-5e ..... T.A. 3,572 ft.

**STARKS—CALCASIEU PARISH**

Union Sulphur Co.'s No. 1 Industrial, 1,916 ft. S, 2,254 ft. W of NE cor. Sec. 30-9s-12w ..... No report.

**SWEET LAKE—CAMERON PARISH**

Pure Oil Co.'s No. 11 Yount Lee, Sec. 13-13s-8w, 800 ft. S 66 deg. 43 min. from No. 9 ..... Heaving shale 6,070 ft; P.B. to 7,210 ft; to sidetrack.

**ST. BERNARD PARISH**

Southern Sulphur Co.'s No. 1 State-Lake Borgne, 850 ft. N, 330 ft. E of SE cor. Sec. 33-13s-15e ..... Rig.
Southern Sulphur Co.'s No. 1 Lake Levy, 400 ft. S, 500 ft. N of SW cor. Sec. 28-13s-15e ..... Derrick.

**SULPHUR—CALCASIEU PARISH**

Union Sulphur Co.'s No. 727 fee, 75 ft. N, 1,270 ft. W of SE cor. SE NW Sec. 29-9s-10w ..... Comp. 4,200 bbls.; ¾-in. choke, 5,408 ft.

Union Sulphur Co.'s No. 744 fee (W.O.), 2 ft. S, 24 ft. W of C Sec. 29-9s-10w ..... T.D. 3,429 ft; pulling screen to deepen.

Union Sulphur Co.'s No. 747 fee, 750 ft. W, 5 ft. S of C Sec. 29-9s-10w ..... T.D. 2,797 ft; pulling screen to deepen.

Union Sulphur Co.'s No. 780 fee, 465 ft. N and 536 ft. E of center of Sec. 29-9s-10e ..... Drlg. rock 2,510 ft.

Union Sulphur Co.'s No. 783 fee, Sec. 29-9s-10w ..... Drlg. rock 3,500 ft.

**TERREBONNE PARISH**

The Texas Co.'s No. 8 State-Caillou Island, 1,050 ft. S, 2,770 ft. E of NW cor. Sec. 20-23s-20e ..... Drlg. shale 4,420 ft.

The Texas Co.'s No. 8 State-Dog Lake, 4,067 ft. W, 1,377 ft. N of SE cor. Sec. 31-21s-18e ..... Drlg. sand 4,820 ft.

The Texas Co.'s No. 18 State-Lake Barre, 1,876 ft. W, 551 ft. S of NW cor. Sec. 30, in Sec. 38-21s-20e ... Salt 3,815 ft.

The Texas Co.'s No. 1 State-Four Isle, 1,800 ft. N, 1,-700 ft. W of SE cor. Sec. 22-21s-14e ..... Drlg. shale 3,260 ft.

The Texas Co.'s No. 1 School Board-Bay St. Elaine, 2,250 ft. S, 600 ft. E of NW cor. Sec. 16-22s-13e..... Drlg. shale 1,110 ft.

## TEXAS

**MISCELLANEOUS WILDCATS**

**BRAZORIA COUNTY**

E. A. Anderson et al's No. 1 Reynold, Johnson, Walker & Borden League, 5,502 ft. from W line, 850 ft. from W line of 132-ac. lease ..... Drlg. sand and gravel 906 ft.

Danciger O. & R. Co.'s No. 2 Hunt, Pledger, 6,550 ft. from E line, 5,550 ft. from S line of W. Carson Sur... T.D. 6,884 ft; sand S.O. 6,861-81 ft; cmtd. 7⅝-in. csg. 6,859 ft.; drlg. plug.

Amerada Pet. Corp. and Rycade Oil Corp.'s No. 4 Seaburn, Austin & Williams Sur., 150 ft. W of No. 3 on line with Nos. 1, 2 and 3 ..... Derrick.

**BRAZOS COUNTY**

F. H. Scott's No. 1 Klintworth, I. Curd Sur., 300 ft. NE line, 400 ft. SE line of tract ..... Cmtd. surface csg.

**CHAMBERS COUNTY**

Mills & Jones' No. 1 Gan, John S. Roberts Sur., 255 ft. W, 1,052.73 ft. S of NE cor. of 138-ac. tract .... Drlg. sticky shale 3,125 ft.

**COLORADO COUNTY**

Danciger O. & G. Co. and L. E. Hults' No. 1 C. L. Raver, B.B.B.&C. Sur., Sec. 1, 990 ft. out of SW cor. of 477-ac. tract ..... Shale 4,529 ft.; S.D.

Fabrigus & Poole's No. 1 Lake Side Irrigation, 1,500 ft. SE, 500 ft. NE NW cor. Patrick Real Sur. ..... T.D. 1,445 ft; cmtd. 12¼-in. csg. 1,150 ft.

Humble O. & R. Co.'s No. 1 John McShane, L.&G.N. Sur., Sec. 42, 466 ft. out of NE cor of tract ..... Drlg. shale 6,412 ft.

McCullouch Oil Co.'s No. 1 Kansteiner, Lelander Beason Sur., 300 ft. out of NE cor. of tract ..... Spudding.

Weimar Oil Co.'s No. 1 H. T. Brandt, F. Pettus Sur., 250 ft. from N line, 250 ft. from E line of tract .... Drlg. sandy shale 1,672 ft.

**FORT BEND COUNTY**

Naylor & DeCosta's No. 1 Naylor, 6,350 ft. N, 55 deg. E from SW cor. 453-ac. tract in Christman Sur. .... T.D. 7,014 ft; P.B. to test at 6,-400 ft.; no report.

**GRIMES COUNTY**

Koch et al's No. 1 Haferkamp, Samuel Fulton Sur., 335 ft. from S line, 347 ft. from E line of 159 acres.. Shale 3,110 ft; S.D. for fuel.

Petroleum Southwest Co.'s No. 1 Greer, Pat O'Connor Sur., 200 ft. from W line, 400 ft. from N line of 150-ac. tract ..... Drlg. sandy shale 2,639 ft.

**HARRIS COUNTY**

Burns, Ogg & Houston's No. 1 Kenning, H.&T.B. Sur., 330 ft. S line and 550 ft. W line ..... Derrick.

C. & C. Drlg. Co. and Mephail's No. 1 Erhardt, C. H. Delesdenier League ..... Sand and shale 4,265 ft.

Hamilton et al's No. 1 Hargroves, W. C. Ry. Sur. No. 10, Blk. 1; 1,750 ft. from E line, 645 ft. N line .... Gumbo 1,000 ft; cmtd. 10-in. csg.

Melbr Oil Co.'s No. 1 L. B. House, 100 ft. from N line, 600 ft. from E line, Sec. 22, Harris County School Land Sur. ..... Derrick.

Jack Schultz et al's No. 1 Woodburn, 450 ft. NW of center of August Whitlock Sur. ..... Drlg. gumbo 815 ft.

Sinclair Prairie Oil Co.'s No. 1 Kirmayer, Jesse Denton Sur., 357 ft. S, 601 ft. W of SE cor. Mrs. Willie Moore 200-ac. tract in Kirmayer 800-ac. tract ..... Drlg. shale 5,229 ft.

**JACKSON COUNTY**

The Texas Co.'s No. 1 Mitchell, S. F. Austin League, 450 ft. W, 450 ft. S of NE cor. of 63-ac. tract, Lot 28, Clement Subd. ..... Drlg. sticky shale 5,083 ft.

Turnbull et al's No. 1 Maurits, John Davis Sur., 330 ft. from W line of 200-ac. tract and 330 ft. N of center of G.H.&S.A. Ry. Sur. ..... Drlg. sticky shale 5,809 ft.

**JEFFERSON COUNTY**

Blam & Denny's No. 2 Broussard, John McGaffey Sur. .. Hard sand 3,440 ft; fishing.

W. J. Parker's No. 1 Rorck, A. Williams Sur. ..... Shale 2,310 ft; lost hole to 400 ft; sidetracked to 1,200 ft; S.D.

**LIBERTY COUNTY**

C. G. Hamill's No. 1 McNair, Wm. Harris Sur., 2,700 ft. from E line and 525 ft. from S line of tract .... Drlg. shale 5,118 ft.

Yount Lee Oil Co.'s No. 1 E. W. Boyt, H.&T.C. Sur., Sec. 17, 300 ft. from S line, 2,440 ft. from E line of section ..... Drlg. hard shale 9,259 ft.

**MATAGORDA COUNTY**

Cockburn Oil Corp.'s No. 5 Hawkins, Shepherds Mott, 2,300 ft. SE, 1,800 ft. NE of W cor. Daniel McCarthy Sur. ..... Junked and abd. 5,917 ft.

Humble O. & R. Co.'s No. 2 Pierce est., 1,900 ft. NE, 466 ft. NW at right angles out of SW cor. of Pierce estate, same being NW cor. of W. S. and L. B. Hunt tract, W. Carson Sur. ..... Drlg. shale 7,476 ft.

United North & South Dev. Co.'s No. 1 Stoddard (W.O.), 150 ft. W, 545 ft. N of SE cor. of Blk. 53, Buckeye townsite ..... Set 180 ft. of 4-in. screen 7,860 ft.; comp. 1,934 bbls., 4% b.s. and wtr.; 1 3/16-in. choke, 1,-550 lbs. on csg.

United North & South Dev. Co.'s No. 1 Unit 6 (No. 2 Stoddard), 25 ft. each way out of NW cor. of Lot 19, Buckeye Townsite ..... Drlg. shale and lime 7,754 ft.

United North & South Dev. Co.'s No. 1 Unit 14 (No. 1 Dr. Plotner), 1,310 ft. SE of No. 1 Stoddard and 136 ft. W of right of way of Collegeport branch of St. L.&B.M.R.R., Buckeye ..... Set 157 ft. of 5-in. screen 7,840 ft.; washing.

United North & South Dev. Co.'s No. 1 Unit 25, 1,325 ft. S, 1,000 ft. E of No. 1 Unit 6 ..... Drlg. hard lime 5,478 ft.

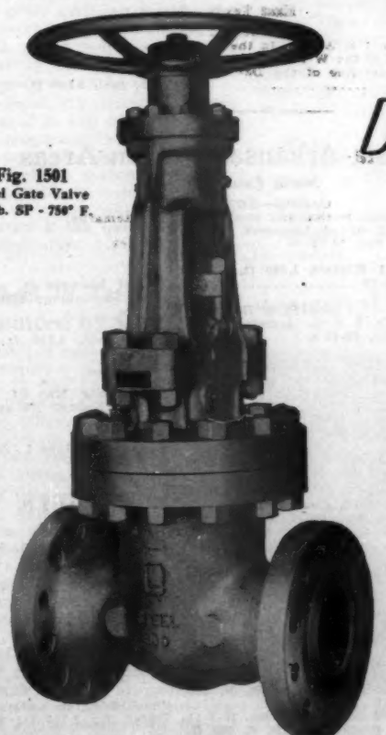
**POLK COUNTY**

Boone, Clark & Boone's No. 1 Tex. Long Leaf, 2,835 ft. NW along NE line of D. B. McComb Sur. from E cor. and 1,188 ft. SW at right angles ..... Dry and abd. 4,415 ft.

Carl B. King Drlg. Co.'s No. 1 U. S. Alabama Indian Reservation, 2,248 ft. from SW line, 5,922 ft. from SE line of Thomas Colville Sur. ..... S.W. sand 3,650 ft; S.D.

Kirby Pet. Co.'s No. 1 Kirby Lbr. Co., 466 ft. out of NW cor. of James Stephenson Sur. ..... Drlg. shale and lime 4,400 ft.

Roxie Oil Co.'s No. 1 Reed, A. Viesca Sur., 150 ft. out of NW cor. of 475-ac. lease ..... T.D. 4,311 ft; T.A.

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REFUGIO COUNTY

Humble O. & R. Co.'s No. 6 O'Connor, L. Serna Sur., 14,375 ft. from S line, 2,932 ft. from W line ..... Drlg. shale 1,029 ft.

TYLER COUNTY

Republic Prod. Co. and Houston Oil Co.'s No. 1,014-E (No. 2 Sterne fee), Adolph Sterne Sur., 1,200 ft. S, 400 ft. W of No. 1 Sterne fee ..... T.D. 6,435 ft; reaming.

VICTORIA COUNTY

The Texas Co.'s No. 6-A McFaddin, 5,600 ft. from NE line, 250 ft. from SE line of A. J. Gray ..... T.D. 2,011 ft; pumping wtr. into sand 1,987-2,010 ft. to kill gas pressure.

The Texas Co.'s No. 7 McFaddin, 6,600 ft. S 15 deg. W, 450 ft. N 75 deg. W at right angles from the NE cor. of the A. J. Gray Sur. ..... T.D. 1,176 ft; blowing gas and mud.

WALLER COUNTY

Trapshooter Reilly Oil & Royalty Co.'s No. 1 Menke, Justo Llende Sur., 600 ft. at right angles from NW line at 250 ft. at right angles from E line of 330-ac. tract ..... Drlg. shale 4,793 ft.

WHARTON COUNTY

Pure Oil Co.'s No. 1 Stewart, 2,419 ft. NW, 1,650 ft. NE of S cor. of Sec. 25, Morris & Cummings Sur. ..... Drlg. hard sandy shale 7,228 ft.

## Wildcat Operations in Louisiana-Arkansas

(Continued from Page 49)

CONVERSE DISTRICT

Lambert et al's No. 1 Edwards, 300 ft. S and E, NW cor. SW NW Sec. 29-9-13 ..... D.S.test 3,045-3,328 ft; S.W. and mud.

H. C. Lessenger's No. 1 Bowman-Hicks, 330 ft. S, 330 ft. E. NW cor. Sec. 13-9-13 ..... Base chalk 2,109 ft; S.D. 2,234 ft.

Joe Modisette's No. 3 Frost Lbr. Industries, 330 ft. S and E, NW cor. NE SW Sec. 16-9-13 ..... Derrick.

### Arkansas

COLUMBIA COUNTY

C. W. Alworth et al's No. 1 W. D. King, SW cor. SE SW Sec. 16-17-20 ..... Began June 5; drlg. 50 ft.

DESHA COUNTY

T. J. O'Hara's No. 1 Martin, NW cor. NW SE Sec. 3-8-1e ..... Began drlg. May 8; S.D. acct. of high wtr. and waiting for csg.; T.D. 140 ft.

HEMPSTEAD COUNTY

Kentucky O. & G. Co.'s No. 1 Leslie, NW cor. SW NW Sec. 21-9-26 ..... Derrick.

LAFAYETTE COUNTY

Geo. W. Harper's No. 1 Reed-Bodcaw, NW cor. Sec. 16-15-23 ..... Derrick.

LITTLE RIVER COUNTY

American Portland Cement Co.'s No. 1 fee, 150 ft. S and E, NW cor. SW NE Sec. 21-13-32 ..... Coring anhydrite 2,430 ft.

MILLER COUNTY

J. T. Humphrey's No. 1 Grace, C SW SW Sec. 9-15-27... Cmtd. 10-in. 204 ft.

Tarkington et al's No. 1 Gibson, 1,980 ft. N, 660 ft. E, SW cor. Sec. 30-13-27 ..... Rigging up.

### Mississippi

JONES COUNTY

Snow-Bloch Pet. Co.'s No. 1 Watson, 600 ft. W, 210 ft. S, center, Sec. 24-7-13 ..... Began drlg. June 2.

LAMAR COUNTY

Lamar Oil Co.'s No. 1 Scott, NE NE Sec. 18-2n-14..... Rigged up.

WARREN COUNTY

Kistler & Stivers' No. 1 Blake est., 1,215 ft. NE Blakely Station, Sec. 15-17-5 ..... Rig up.

### East Texas

CASS COUNTY

T. H. Pardoe, operator's No. 1 S. A. Orr, in the G. W. Morris Sur., 390 ft. east of the W line of the G. W. Morris Sur., also the east line of the David Frazier Sur. ..... S.D. fuel, 2,140 ft.

## Louisiana-Arkansas Proven Areas

### North Louisiana

CADDO—BETHANY

Company, well, farm name, section and block— Remarks:

Tom Collins Pet. Co.'s No. 1 Gill & Lipscomb, 660 ft. N, 1,506 ft. E, SW cor. Sec. 17-16-16 ..... Derrick.

CADDO—BLANCHARD

Louana O. & G. Co.'s No. 1 Winters, 1,980 ft. N, 660 ft. W, SE cor. Sec. 4-18-16 ..... Tested 5,000,000 ft. gas; arranging set tubing; T.D. 2,759 ft.

CLAIBORNE PARISH

Haynesville Partnership's No. 1 J. L. Garrett, 300 ft. S and E, NW cor. SW Sec. 25-23-8 ..... Cmtd. 6-in. 4,140 ft; coring 4-194 ft.

DE SOTO PARISH

P. B. Dyer's No. 1 B. F. Jenkins, SE cor. NW SW Sec. 35-13-13 ..... Began drlg. May 24; cmtd. 8-in. 917 ft; drlg. 975 ft.

MOREHOUSE PARISH

The Texas Co.'s No. 1 Sisson, 300 ft. N, 320 ft. E, center Sec. 20-22-3 ..... Began drlg. June 5; drlg. 283 ft.

United Gas Public Service Co.'s No. 28 Crossett, 1,991 ft. E, 2,640 ft. S, NW cor. Sec. 27-21-4e ..... Rig up.

OUACHITA PARISH

Inabent & Pipe's No. 2 Van Horn, Sec. 14-18-4..... Cmtd. 6-in. 3,193 ft.

SABINE PARISH—ZWOLLE

Baird Bros.' No. 1 Trammell, 600 ft. N, 330 ft. W, SE cor. NE Sec. 30-8-11 ..... Began drlg. June 3; 10-in. 42 ft; drlg. 600 ft.

Bryant & Lucas' No. 1 Andries, 360 ft. S, 350 ft. W, NE cor. NW SE Sec. 15-7-11 ..... Began May 7; 10-in. 41 ft; S.D.

Byers et al's No. 1 Ervin & Bishop, 550 ft. E, 450 ft. N, SW cor. Sec. 16-7-11 ..... S.D. 2,460 ft.

J. C. Chandler's No. 1 Rains, SW cor. NW Sec. 14-7-11.. Derrick.

T. E. Kelly's No. 1 McClanahan, 1,000 ft. S, 330 ft. E, NW cor. SW NW Sec. 36-8-11 ..... Derrick pattern.

H. C. Mauiding's No. 1 DeLatin, Sec. 9-7-11..... Began drlg June 1; cmtd. 10-in. 41 ft.

Ben Merritt et al's No. 1 L. A. Cook, 330 ft. N, 333 ft. W, SE cor. Sec. 34-8-11 ..... Cmtd. 6-in. top mari at 2,317 ft.

E. F. Neely's No. 1 Garner, SE cor. SW NE Sec. 15-7-11.. Tested dry 2,750 ft; W.O.

Robertson Drlg. Co.'s No. 2 Hughes, 330 ft. S, 660 ft. W, NE cor. SW NW Sec. 36-8-13 ..... Cmtd. 6-in. 2,265 ft.

Scully & Beach's No. 3 Lafitte, 1,030 ft. S, 134 ft. E, NW cor. Sec. 13-7-11 ..... T.A. 2,636 ft.

C. H. Tuttle's No. 4 Byrd, 800 ft. S, 920 ft. E, NW cor. NW NW Sec. 7-7-10 ..... Derrick.

### Mississippi

RANKIN COUNTY

Love Pet. Co.'s No. 1 fee, 300 ft. S, 100 ft. E, NW cor. NE NE Sec. 1-5-1e ..... Rig up.

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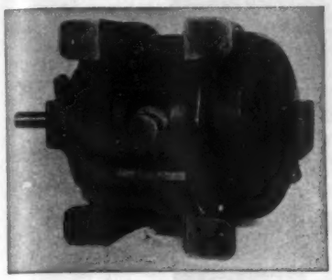
To give adequate protection against overheating in industrial motors the Westinghouse Electric & Manufacturing Co. announces "Thermoguard motors," having a built-in disc thermostat that functions before the temperature of the insulation reaches the danger point. The combination of a motor with built-in thermostat and a control device with a



separate thermal overload relay meets all requirements for motor protection against burnouts. Thermoguard motors are said to afford a high degree of insurance against production losses and maintenance expense.

Thermoguard motors may be arranged, at the option of the user, either to be disconnected from the source of power when the temperature approaches the danger zone, or to indicate by giving an audible or visible signal when an unsafe temperature is being approached. Where an enforced motor shutdown would cause a loss of product or other hazard, the Thermoguard motor will give advance warning that an emergency exists—and corrective measures can be taken.

When desirable, Thermoguard motors can be arranged to stop when their temperature is dangerously high and cannot be started until the operator manipulates the control. On unattended applications, it is possible to arrange the control so that the motor will automatically restart when it has cooled to a safe operating temperature.

## Notes About Trade Literature

In "An Important Contribution to Metallurgy," a booklet of 24 pages, the A. M. Byers Co., Pittsburgh, Pa., presents a pictorial review of the processes developed in large-scale production of wrought iron.

—

The Edward Valve & Manufacturing Co., East Chicago, Ind., is distributing a folder enumerating the features of Edward forged steel valves.

—

How haulage costs are reduced by the Grico four-wheel drive unit, which gives to a 1½-ton truck the carrying capacity of a 3½-ton truck, is explained in literature sent on application by the Gear Grinding Machine Co., Detroit, Mich.

—

A folder issued by the Goetze Gasket & Packing Co., Inc., New Brunswick, N. J., describes and pictures the various lines of gaskets made by the company.

—

The Babcock & Wilcox Co., 85 Liberty Street, New York, which is to provide the fusion-welded plate-steel pipes used in the Boulder dam, has prepared an attractive booklet of 16 pages describing the entire project.

—

The Acheson Oildag Co., Port Huron, Mich., has available for distribution Bulletin No. 102B, which deals with the lubrication of small mechanical devices with colloidal graphite.

—

The Coppus Engineering Corp., Worcester, Mass., manufacturer of industrial and ventilating blowers, has issued Bulletin 166 describing the new portable gasoline engine driven cable manhole ventilator for ventilating and driving noxious fumes from confined working spaces.

—

The W-K-M through conduit lubricated gate valve is the subject of a bulletin issued by the W-K-M Co., Houston, Tex.

—

Design and construction features of Westinghouse heat exchangers are described in a booklet issued by the Westinghouse Electric & Manufacturing Co. A number of heat exchanger construction features have been developed which contribute to low installation cost, reduced maintenance, ease of cleaning and unusual reliability.

—

The Metallizing Co. of America, Inc., 1218 Long Beach Avenue, Los Angeles, Calif., has prepared a 20-page booklet, sent on request, covering the metallizing process, its applications, advantages and accessory equipment. It names objects coated, type of metal used and purpose of coating. There are more than 50 pictures explaining how metal is sprayed like paint.

—

"The Facts About Welded Piping for Buildings," a booklet published by the Air Reduction Sales Co., Lincoln Building, New York, is of interest to building and plant executives responsible for piping installations and their maintenance.

—

The Bridgeport Brass Co., of Bridgeport, Conn., has just issued a 24-page illustrated booklet on the physical properties and application of three high strength Silicon bronzes sold under the trade-name of Duronze alloys.

—

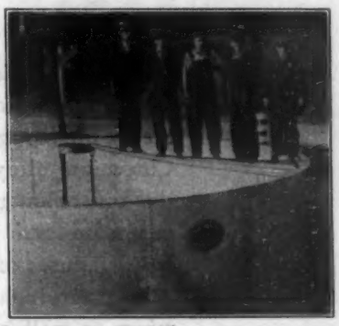
Leaflet 2159, prepared by the Allis-Chalmers Manufacturing Co., Milwaukee, Wis., describes the company's new single-stage water-cooled rotary air compressors. This covers a complete line of rotary air compressors and vacuum pumps of the multicellular, sliding-vane type, having a range of volumes from 50 to 2,000 c.f.m., at pressures up to 150 pounds and vacuums up to 29.85 inches mercury.

—

Pitmans, pitman stirrups and bearings, polished-rod hangers and bearings, walking-beam compensators and wristpins are illustrated and described in Booklet E-3-33, announced by the Parkersburg Rig & Reel Co., Parkersburg, W. Va.

## Corrugated Deck Adds to Strength of Bolted Tank

Greater strength, perfect fitting of seams and increased simplicity of erection through elimination of rafters, flanges and channels, are said to have been achieved in the corrugated deck for bolted steel tanks introduced by the Parkersburg Rig & Reel Co., Parkersburg, W. Va. These advantages are said to be gained by the shape, number and



location of deep radial corrugations pressed into the steel sheets.

The corrugated construction results in the deck being self-supporting, with equal strength over its entire area, and capable of withstanding increase of either pressure or vacuum without permanent deflection at any point. Thus the likelihood of the tank either bulging or pulling is minimized.

Perfectly matched joints are made possible by channels pressed into the radial seams, a tighter tank resulting. Also these channels keep bolt heads from turning when nuts are loosened or tightened.

—

Publication of "Drilling Mud" by the Baroid Sales Co., 837 Jackson Street, Los Angeles, Calif., discontinued in October, 1931, owing to curtailment of drilling operations at that time, has been resumed. The June number contains an interesting article on the mechanism of wall-building in a rotary-drilled well.

## New Diesel 75 Tractor Is Announced by Caterpillar

The largest and most powerful tractor in the "Caterpillar" line, the "Caterpillar" Diesel 75, has been announced by Caterpillar Tractor Co. of Peoria, Ill. This tractor follows eight years of extensive research in Diesel engine design and nearly two years of performance of "Caterpillar" Diesel tractors in the field.

This new tractor is powered with a six-cylinder, valve-in-head "Caterpillar" Diesel engine developing 80 horsepower at the drawbar and 93 horsepower on the belt at 820 r.p.m. The engine has a bore and stroke of 5¼ by 8 inches. It has a seven bearing statically and dynamically balanced crankshaft, force-feed lubrication to all crankshaft, connecting rod, wristpin and rocker arm bearings, large capacity air cleaner and fuel filters and positive, simple starting by means of a bendix driven by an auxiliary two-cylinder gasoline engine mounted on the left side of the bloc.

Eight speeds, six forward and two reverse, are controlled through a single-gear shift level and provide working speeds ranging from 1.7 to 5 miles per hour. A V dash gives full visibility from the driver's seat and adjustable controls add to the ease and comfort of operation.

## Universal Power Corp. Arc Welding Machines Employ Shunt Inductor Principle

*Universal high road-speed trailer arc welder coupled with a standard roadster*

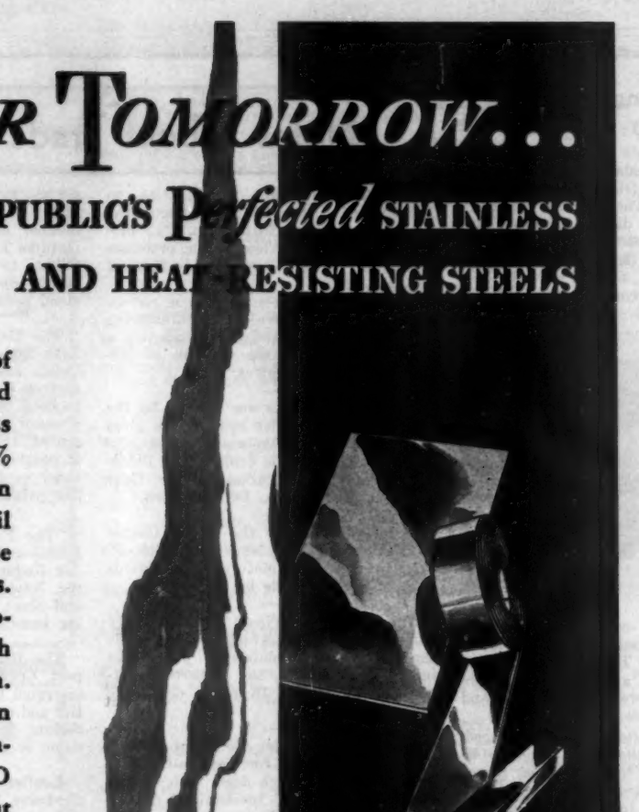
The Universal Power Corp., Cleveland, Ohio, has appointed the C. F. Camp Co., Tulsa, distributor for its full line of arc welding machines and welding equipment.

The Universal Power Corp. offers arc welders from 200 to 1,500-ampere capacity. There are available in this line high-speed two-wheel trailer-type gasoline engine driven welders; motor generator sets and tractor type welders.

All welding machines employ the shunt inductor principle developed by the Universal Power Corp. and are of the high voltage type. The shunt inductor principle is a new departure in the arc welding machine field for which the manufacturer claims higher efficiency, more stable arc, greater metal deposit and less operator fatigue.

# BUILD FOR TOMORROW...

## WITH REPUBLIC'S *Perfected* STAINLESS AND HEAT-RESISTING STEELS



AS the world's largest manufacturer of alloy steels, Republic has perfected the complete group of ENDURO Stainless Steels, including a special group of 4-6% Chromium alloys, particularly for use in the oil refining industry where hot oil corrosion and high temperatures cause rapid failures of ordinary ferrous metals. This group includes straight 4-6% Chromium as well as 4-6% Chromium with either molybdenum or tungsten addition.

If your requirements call for corrosion resistance, high creep strength, machinability or ductility, there is an ENDURO type with the special qualifications that best fit it to meet such requirements. And the right grade of ENDURO in the right place will prove a vital factor in eliminating frequent shutdowns and replacements, and will introduce a new standard by which economical operation may be judged.

For use in still tubes, still linings, hot oil lines, agitators, tanks, valves, heat exchangers and other severe service applications, plan now to specify ENDURO. Republic metallurgists will gladly assist in selecting the correct grade of tubes, sheets, strip, plates or any of the other numerous forms in which it is available.

Write for detailed printed information.

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**ENDURO**

REPUBLIC'S PERFECTED STAINLESS AND HEAT-RESISTING STEELS

*Licensed under Chemical Foundation Patents Nos. 1316817 and 1339378.*

# NATURAL GAS DEVELOPMENTS

## Shallow Gas Field in Macon County, Tenn.

By GEORGE I. WHITLATCH
Tennessee Division of Geology

A newly developed gas field in Macon County, Tennessee, located along Long Fork Creek, approximately 6 miles east of LaFayette, lies north of Highway No. 52 in the vicinity of Sycamore Valley School. The discovery well of this area was drilled by J. H. McClurkin in the spring of 1927, on the farm of Dr. W. W. Tucker, at a point approximately 1¼ miles south of Highway No. 52, on the east side of Long Fork Creek, at an elevation of 779 feet. The depth of the well is 640 feet with the "pencil cave" struck at 437 feet below the surface. The initial production of this well is reported at 1,200,000 feet, but subsequent to the drilling and production of gas from No. 1 Whitley, the production was increased approximately 1,000,000 feet, and the present rated flow is 2,200,000 feet, after one hour's flow. The rock pressure is reported at 24 pounds. The Tucker well was drilled for parties interested in obtaining oil and with the production of gas no further attempt was made at that time to prospect the area.

Three years ago, Charles F. West, Jr., representing capital from Duluth, Minn., became interested in the possibilities of developing a gas field in the Long Fork-Long Hungry Creeks area and had a detailed geologic survey made, which resulted in his initial well located on the Joel Whitley farm, on the west side of the creek, approximately 1 mile north of No. 1 Tucker, at an elevation of 776 feet. This elevation is approximately 80 feet below the base of the Chattanooga Black shale exposed in a road quarry along Highway No. 52 about 500 feet northwest of the well. While drilling the Whitley well the tools were blown out of the hole at 181 and 230 feet. At 230 feet deeper drilling was made impossible by a strong flow of gas at that depth, and after 11 hours' effort the flow was brought under control and the well capped. The reported flow of this well is between 3,300,000 and 3,500,000 feet after a one-hour blow. The rock pressure is reported at 48 pounds. The well was completed November 9, 1932, at the 230-foot depth and cased with 32 feet of 10-inch and 215 feet of 8-inch casing.

The third well of this field is on the Cook farm, approximately one-half mile north of No. 1 Whitley at an elevation of 759 feet. This well is not considered as completed by Mr. West, but to its present depth of 652 feet there has been only a small show of gas. The "pencil cave" was encountered at 487 feet below the surface.

As will be noted from the above, the "pencil cave" reveals a structural dip of 50 feet to the north between No. 1 Whitley and No. 1 Cook. Appreciable dip of strata towards the east and towards the west can be seen along the highway on each side of Long Fork Creek. Enough evidence of structure is present to warrant the belief that a gas field of some extent might be developed along Long Fork Creek.

The shallow drilling to producing sands is an especially attractive feature of this territory and should be effective in encouraging thorough prospecting of all promising areas.

### EXTEND HESPELER SYSTEM

CHATHAM, Ontario, June 10.—Dominion Natural Gas Co. is extending its distributing system in Hespeler, Ontario, some 3,600 feet of new line being laid this spring.

## Gas Operators Active in New York State Side of N. Y.-Penn. Gas Field

WELLSBORO, Pa., June 10.—A glance at the last report of gas scouts made, shows a decided increase of activities in New York State.

The Mutual Natural Gas Co. is drilling at 2,775 feet on the Eugene Black farm, Scio Township, Allegany County; the Syracuse Alliance Co., drilling at 770 feet at No. 2 Bump, Junius Township, Seneca County; Kerr & Kaufman, spudding in on the J. A. Smith, Allen Township, Allegany County; John Carpenter, drilling at 500 feet on the Lee Cook, Milo Township, Yates County; John E. Koykendell, moving in on a location on the S. E. Dowden, at Waterloo, Seneca County; Bingham and others have spudded in and shut down on the R. Angel, Rathbone Township, Steuben County; Fisher, Agnew and others maintain a location on the Toohy, Waterloo Township, Seneca County.

The Geneva Natural Gas Co. is still inactive on the O'Connor, Phelps Township, Ontario County, where it has a 2,967-foot operation; Dorr Martin and others, shut down at 1,320 feet on the Bowyer, Cameron Township, Steuben County; Carl Finger and others, shut down at 1,725 feet on the Louise Kipp in Torrey Township; the Belmont Quadrangle has shut down on the Laura Chapman, Ovid Township, Seneca County; J. B. Reed interests, shut down at 30 feet on the Quinlin Oil Co. property, at Olean, in Cattarangus County, and the Rock City Oil & Gas Co. has shut down on the Norman Hall property, Manchester Township, Ontario County.

Kerr, Kaufman and the Pennsylvania Natural Gas Co. have a location of the Joseph Bentley in Allen Township, Allegany County; Peterman and others are moving in on the No. 2 Valerio location in Phelps Township; have locations on the S. M. Fridley, the Peter Schefko properties in Phelps Township and on the F. Fisher, in Geneva Township, all in Ontario County. The Geneva Natural Gas Co. has a new location on the Mary Booth, Phelps Township; the Syracuse Alliance Co. is moving in on the Evans, Savannah Township, Wayne County; Dearth and others have shut down at 35 feet on the McGowan, Junius Township, Seneca County.

### In Pennsylvania

It is understood that drilling will be resumed at once on the N. E. French, Middlebury Township, Tioga County, Pennsylvania, where Rodgers and others have a 4,225-foot operation. There are no other operations at this time in the Tioga County Field.

In Potter County, Morrow and others are still shut down at 3,550 feet on the W. B. Cole, Allegany Township; G. K. Rodgers and others are drilling at 5,595 feet on the E. A. Coyle, Hebron Township; C. E. Updegraff and others have shut down at 4,930 feet on the E. A. Coyle, same township; Hungiville interests, shut down at 2,065 feet on the Sturdevant, Hebron Township; Rodgers and others, shut down at 2,900 feet on the Scutt, Hebron; Tioga Natural Gas Co., shut down at 470 feet on the property of the First National Bank of Emporium, in Shippen Township; J. B. Reed interests, shut down at 2,947 feet on the No. 2 Champaign location, Allegany Township; the Potter Development Co., cemented at 4,560 feet on the No. 2 Carpenter, Hebron; completed and abandoned a dry hole, on the No. 6 Stearns location, Hebron, top of sand 5,140-47 feet; the North Branch Development Co., drilling at 600 feet on the Frank Moe, Allegany Township; Sylvania Gas Corp., drilling at 300 feet on the Nancy Wilcox, Hebron; Atwater interests rigging up on the George Estes, Allegany Township; Atlantic Seaboard Co., moving in on the Benjamin Haywood estate, Hamlin Township; Bayless Natural Gas Co., moving in on the Louis Frank, Eulalia Township, and the Tioga Natural Gas Co., building a rig on the Emporium Lumber tract No. 2, Shippen Township.

## Sale of Appliances Is Upheld in Texas Court

AUSTIN, Tex., June 12.—The Third Court of Civil Appeals dissolved an injunction granted by the District Court of Travis County restraining the San Antonio Public Service Co. from purchasing and selling gas and electric appliances and from operating motor busses for sightseeing parties in San Antonio and within the 5-mile limit.

"The material issue is whether the sale of such appliances is the usual method employed by utilities in the accomplishment of their main business of manufacturing and selling gas and electricity to the public," the opinion stated. "The evidence on this issue shows that every privately owned electric company in Texas sells and for many years has sold electric appliances; that 3 of the 10 municipally owned electric systems inquired about sell electric appliances or have sold them; that of the 34 gas companies operating in Texas, all except four sell gas appliances, and the four not selling them are related companies under one management, and one of these maintains a display of appliances at its main office."

The opinion said the evidence showed the sale of gas and electric appliances is the usual means employed by utilities in the extension of their service and in accomplishing their main business of manufacturing and selling gas and electricity.

"We have reached the conclusion that under the facts and rules of law applicable, the appellant had the right to engage in the purchase for sale and the sale of gas and electric appliances in connection with and as being incident to its principal business of manufacturing, supplying and selling gas and electricity to the public for heating, lighting and power purposes," the opinion held.

### CLEANING PIPE LINES

CHATHAM, Ontario, June 10.—Canadian Western Natural Gas, Light, Heat & Power Co. of Calgary has commenced the annual overhauling and cleaning of its transmission lines in southern Alberta. Some sections of the line are being renewed or replaced.

### SYLVANIA LAYING LINE

OIL CITY, Pa., June 12.—The Sylvania Corp. has started the construction of an 8-inch welded gas line from a new gasser in the Hebron Field in Potter County to a point near Roulette, a distance of 9 miles.

## Central Michigan Waiting Market for Natural Gas

BAY CITY, Mich., June 10.—Another spring has nearly passed and Central Michigan natural gas operators and royalty owners are still without much more of a market than they had a year ago or more. Consumers Power Co. is starting more gas from the Broomfield Pool to service Bay City with mixed natural and manufactured gas until arrangements can be completed to use straight natural gas. This is one of the first encouraging moves.

The Consumers Co. also is negotiating with Saginaw to supply that city with natural gas on a similar setup. A plan by a group of Clare business men, headed by James Bickell, Clare banker, is to be laid before the Saginaw Council before the negotiations are continued with Consumers. The Clare plan is understood to include piping gas to the city limits of Saginaw and possibly financing a distribution system there.

About 27,000,000 to 30,000,000 feet of gas per day has been developed in Clare County and somewhat more than 500 acres proven. Recalling the experience in the Muskegon Field of overmarketing their supply and quickly exhausting their wells, no one wants this experience repeated. The Clare supply might be sold to a line carrying gas from the Bloomfield Pool in Isabella County. These two pools combined and perhaps hooked up with the Mecosta wells or others that may be developed would probably warrant service not only at Saginaw and Bay City but many other Valley cities—perhaps into the big industrial markets of Flint and Pontiac.

At present the Consumers company stands as the chief company ready to tap Central Michigan gas. Michigan Natural Gas Co.'s permit to build a line to Saginaw and Bay City will expire in June unless operations are started at once. No late moves have been made by other groups negotiating to open markets for natural gas.

## U. S. Court of Appeals Decides Cisco Gas Case

NEW ORLEANS, La., June 12.—The U. S. Fifth Court of Appeals held that the Community Natural Gas Co. had acted prematurely in bringing into a Federal Court action in attempting to force the city of Cisco, Tex., to permit it to increase its gas rates. The decision affirmed the Northern Texas District Court, which refused the company an injunction. The courts held that the company should seek remedy through the Texas Railroad Commission, where action was pending when the case was brought into Federal Court.

"It would be useless and cause confusion," the Appellate Court said, "to permit appellant to temporarily raise its rates before the railroad commission had an opportunity to pass upon the question now pending before it in an orderly way."

The company had contended the commission was unduly delaying decision on the case, but the Appellate Court refused to concur in this contention.

In the original action the company filed a bill against the city of Cisco and its municipal officers to enjoin interference with proposed increases in rates for natural gas on the grounds its operating expenses for the 12-month period ending August 31, 1932, exceeded revenues by some $7,000. It was denied this injunction and appealed to the railroad commission.

# TECHNICAL QUESTIONS ANSWERED

By Charles K. Francis, Ph. D., Technical Editor

This department of The Oil and Gas Journal is devoted to the manufacturing branches of the oil industry.

Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit their problems to Dr. C. K. Francis, technical editor. The department was created for the purpose of aiding managers, superintendents, engineers, chemists and all those engaged in the various phases of plant operation; also those connected with marketing and utilization of petroleum products.

Questions should be submitted in as much detail as possible.

Inquiries must be signed but only the given initials will be printed. The source of the questions is considered to be confidential.

Questions requiring a dicussion of patents, the use of intricate formulas, extended computations, or cost estimates cannot be considered.

When the matter is of general interest the reply will be published within a reasonable time.

## Crude Oil From Port Barre, St. Landry Parish, Louisiana

**I shall be grateful if you can send me an analysis of the crude oil produced in the Port Barre, St. Landry Parish, Field, Louisiana. Also, in your opinion would this crude as such be suitable for use in Diesel engines?—A. H. L.**

The crude produced at Port Barre in St. Landry Parish, Louisiana, seems to vary considerably in composition. Both coastal "A" and "B" grade crudes are found and also a mixed base product, which is naphthenic in the lower boiling and paraffinic in the higher boiling fractions.

From the information available it appears that the tests range as follows:

Gravity, A.P.I.—20.2 to 28.6.

Flash—100 to 220° F.

Viscosity at 100° F.—237 to 279 sec.

Color—Green in the lighter gravity material; black in the heavier gravity material.

Pour—Below 0° F. on all samples of the crude; below 0° F. on the gas oil and lubricating distillate cuts in the heavier material. In the lighter material, the pour is very high on the pressure gas oil and the residue, indicating that in the lighter grade material the crude is paraffinic in the higher boiling portion.

Sulphur—0.32 to 0.89 per cent.

The naphtha yield rate varies from 5 to 9 per cent on the heavy grade, and from 9 to 20 per cent on the light grade.

The gas oil yield ranges from 33.3 to 69.7 per cent.

The naphthenic lubricating distillate in those crudes suitable for its production ranges from 28 to 34 per cent.

The flux oil or residue ranges between 20 and 22 per cent.

With the possible exception of the low flash variety, this oil should be satisfactory for use as Diesel fuel oil.

## Increased Benzol Consumption for Motor Fuel in Great Britain

**I understand that Great Britain uses large quantities of benzol for motor fuel and would like to know how much is used there and what is the most important source?—R. E. A.**

The Petroleum Times, April 15, 1933, gives a reference to the House of Commons report in which it was stated that the volume of motor benzol produced from coal in Great Britain last year was estimated at about 25,000,000 gallons. Since the figure disclosed by the last Census of Production for United Kingdom trade, made in 1930, was only 9,583,000 gallons, this gives an indication of the very rapid increase in benzol production for motor fuel purposes throughout the country. It seems that the British gas industry has decided that it is more profitable to extract benzol, and use or sell it separately, than to leave it in the manufactured gas. The conditions of the times favor such a changeover, and the output of motor benzol should increase. All over England new plants are springing up, and old ones being enlarged. The largest plant in London, at Becton, extracts 16,000 gallons of motor benzol per day, or well over 5,000,000 gallons a year, the process used being based on activated carbon adsorption. At Manchester the corporation gas department plans to extend its plant to produce some 350,000 gallons a year, while at Stratford a small 100,000-gallon per annum plant has just been put into operation. Although in many cases the municipal gas undertakings will only use the fuel for their own transport requirements, the movement is none the less important to the oil-distributing trade. Naturally the exemption of the 16-cent per gallon tax on home-produced motor fuel is a great incentive and on the basis of the above estimate of last year's motor benzol output this would represent a saving of over £833,000, about $2,532,000, and a corresponding loss to the exchequer.

## Black Gasoline Required Under New Mexico Tax-Free Law

**Any information you have covering the kind of dye and the quantities to be used for giving gasoline a black color, according to the New Mexico law for tax-free gasoline, will be appreciated.—S. W. G.**

According to the terms of the recently enacted law of the state of New Mexico it is required that all gasoline entitled to be used without paying the customary tax, which is a total of 7 cents a gallon at Albuquerque, must be colored black when delivered to the consumer. Those engaged in selling gasoline at retail are required to be prepared to deliver such gasoline, when requested, to persons who are prepared to establish the fact that they are entitled to use gasoline without paying any tax to the state.

It is recognized that there are not many dyes available that are suitable for coloring gasoline black, the best known being mixtures containing as the essential ingredient anthraquinone. Dyes of this type are directly soluble in gasoline but may be prepared in the preliminary concentrated form as a solution in benzol.

The black dyes do not given pure colors when used in dilute solution so larger quantities are required per tank car of gasoline than other colors, such as the reds, blues and greens. The preliminary concentrated benzol solution is the better methods for adding any dye, because it is important that all particles should be in solution. If there are any grains that are not dissolved unequal shades will result and shipments will vary in color.

We are informed that there are two reliable black oil soluble dyes available. These are National Gas Black R and Petrol Black A. These give a black color when used at the rate of 1 to 5 pounds per 10,000 gallons of gasoline. The selling price is approximately $2 a pound, the cost varying slightly according to quantities ordered.

## Secondary Standard for Knock Rating of Motor Fuels

**What are the secondary standards that are used when determining the antiknock value of gasoline and reporting as octane numbers?—G. V. R.**

Among the several methods that have been investigated for the measurement of the knocking tendency of gasoline when used as a motor fuel, the most satisfactory is that in which the performance of the sample in a single cylinder engine is compared with that of a known substance, the standard fuel.

The operating conditions of the engine are fixed so the results are obtained by varying the quality of the fuel. A series of fuel standards are prepared from the two hydrocarbons, heptane and octane, and these are tested until a mixture, of known percentage composition, is obtained which matches the knock of the sample. The results are then expressed in terms of the quantity of octane used. If the mixture that equals the sample is one containing 60 per cent octane, then the gasoline represented by the sample is classified as having a knock rating of 60 octane number.

In 1926 Dr. Graham Edgar proposed the use of normal heptane ($C_7H_{16}$) and iso-octane ($C_8H_{18}$ — chemically named 2,2,4-trimethylpentane) as primary standards for reporting antiknock ratings. See Ind. Eng. Chem., 19, 145, 1927. Pure normal heptane has a much greater tendency to knock than any commercial gasoline, while iso-octane has much less tendency to knock than any commercial gasoline. The two hydrocarbons have the advantage that they are nearly alike in physical properties, differing little in gravity, viscosity, boiling point, etc.

After these hydrocarbons were adopted for making knock standards it was explained that they were too expensive to be used in routine testing but that secondary standards which had been calibrated by comparison with heptane-octane blends should be satisfactory. These secondary standards may be prepared from suitable gasolines by making the engine tests against octane blends or other substances of known octane rating. By selecting a series of such gasolines it is possible to have a series for comparing with the unknown gasolines and then reporting the octane numbers from the original tests. Another secondary standard may be prepared by making suitable mixtures containing C. P. benzene.

## Volatility and Starting Temperature of Gasoline

**What are the most important factors that govern the starting qualities of a gasoline and is it possible to calculate the starting temperature from the distillation test?—E. R. Y.**

The factors related to the starting qualities of gasoline have been studied by Dr. O. C. Bridgeman, of the U. S. Bureau of Standards. He discussed several fundamental data in The Oil and Gas Journal, March 5, 1931, page 143. The question is answerel on this authority and the formula here mentioned is also from the bureau.

Preliminary information on the use of fuels in automotive equipment indicated that the ratio of air to fuel in the mixture burned in the cylinders was the most important variable in connection with volatility. Necessarily the mixture ratio burned must be between 4 to 1 and 20 to 1 since these ratios represent the limits of explosive mixtures. However, variation in the mixture burned within these limits exerts a marked effect on the engine performance. Thus the mixture ratio for maximum power is about 12.5 to 1; for maximum economy is about 15 to 1, and for maximum ease of acceleration is about 12 to 1. If a series of fuels are used in the same engine under similar operating conditions, the same performance will be obtained with all of these fuels if the ratio of air to fuel burned in the cylinders is identical in all cases. In order to obtain this same effective mixture, it is usually necessary to supply different mixtures by the carburetor in the case of the various fuels, which means that different percentages evaporate in the manifold. Therefore the supplied mixture and the percentage evaporated are also important variables. The fourth variable is the temperature, since this affects the percentage of the fuel which evaporates, and hence the resultant mixture of air and fuel vapor. The four fundamental variables in connection with volatility are, accordingly, the resultant mixture of air and fuel vapor, the supplied mixture of air and liquid fuel, the percentage evaporated and the temperature.

The significance of the A.S.T.M. distillation test as a practical measure of volatility from the engine standpoint was verified by engine tests. Four points in connection with engine performance are of interest, namely: Starting, acceleration, distribution and crankcase dilution. Starting tests under a variety of conditions were made on gasolines of measured volatility and it was found that a definite relationship existed between starting temperature, supplied mixture ratio, ease of starting, and the A.S.T.M. distillation data. Starting should not be difficult until the temperature drops to a value lower than approximately 140° F. below the A.S.T.M. temperature at 10 per cent evaporated.

The bureau has found that the starting temperature may be calculated from

$$t\ 10\% - t\ S.T. = \tfrac{1}{3}\ t\ 10\% + 94$$

where the temperatures are Fahrenheit and t S.T. the starting temperature.

For the same supplied mixture and atmospheric temperature, the fuel with the lowest 10 per cent point will give the easiest starting. Thus a fuel with a 10 per cent point of 136° F. will permit starting with half the number of crankshaft revolutions required for a fuel with a 10 per cent point of 176° F., and in 100 starts in an engine of average size 1 gallon of fuel would be saved in the case of the more volatile gasoline.

44. Wilcox, H. F., Oil & Gas Co.
43. Warren Petroleum Co.
42. Twin State Oil & Gas Co.
41. Tide Water Cos.
40. The Texas Co.
39. Texas Pipe Line Co. of Okla.
38. Texas-Empire Pipe Line Co.
37. Superior Oil Corp.
36. Sunray Oil Co.
35. Stanolind Pipe Line Co.
34. Stanolind Oil & Gas Co.
33. Skelly Oil Co.
32. Shell Pipe Line Co.
31. Shell Petroleum Corp.
30. Selby Oil & Gas Co.
29. Pure Oil Co.
28. Phillips Petroleum Co. (Bartlesville)
27. Oklahoma Pipe Line Co.
26. Oklahoma Natural Gas Corp.
25. Midwest Refining Co.
24. Mid-Kansas Oil & Gas Co.
23. Mid-Co Oil Corp.
22. Mid-Continent Petr. Corp.
21. Marathon Oil Co.
20. Kewanee Oil & Gas Co.
19. I. T. I. O. Co. (Bartlesville)
18. Hanlon-Buchanan Co.
17. Great Lakes Pipe Line Co.
16. Gardner Petroleum Co.
15. Gypsy Oil Co.
14. Gulf Pipe Line Co. of Okla.
13. Empire Cos. (Bartlesville)
12. Devonian Oil Co.
11. Deep Rock Oil Co.
10. Danciger Oil & Refining Co.
9. Continental Oil Co. (Ponca City)
8. Consolidated (Sinclair Prairie) Oil Co.
7. Carter Oil Co.
6. British American Oil Co.
5. Bell Oil & Gas Co.
4. Barnsdall Corp.
3. Amerada Petroleum Corp.
2. Altitude Petroleum Corp.
1. Ajax Pipe Line Co.

# MAJOR OIL COMPANIES IN LEADING SOUTHWESTERN CITIES

14. [illegible]
13. [illegible]
12. [illegible]
11. [illegible]
10. [illegible]
9. [illegible]
8. [illegible]
7. [illegible]
6. [illegible]
5. [illegible]
4. [illegible]
3. [illegible]
2. [illegible]
1. [illegible]

(14 COMPANIES)

9. [illegible]
8. [illegible]
7. [illegible]
6. [illegible]
5. [illegible]
4. [illegible]
3. [illegible]
2. [illegible]
1. [illegible]

(9 COMPANIES)

8. [illegible]
7. [illegible]
6. [illegible]
5. [illegible]
4. [illegible]
3. [illegible]
2. [illegible]
1. [illegible]

(8 COMPANIES)

TULSA | 2nd CITY | 3rd CITY | 4th CITY

# Tulsa Has More Major Oil Companies Than All Other Southwestern Cities Combined

It is oil *companies* which make an oil *capital*.

Tulsa became recognized as the "Oil Capital" more than a decade ago, when she had perhaps *half* her present roster of oil companies. Each year, her preeminence as the central city of world oil has become more pronounced.

Tulsa's acquisition of major oil companies has been particularly notable in the past two or three years. In this period she has become headquarters city for Stanolind Oil & Gas Company, Consolidated (Sinclair-Prairie) Oil Corporation, Tidewater Oil Company (Production Headquarters), Midwest Refining Company, Shell Petroleum Corporation (Midcontinent Division), Oklahoma Pipe Line Company, Ajax Pipe Line Company. Four of these companies moved to Tulsa within the past six months.

Tulsa is now headquarters for 40 major oil companies, while 4 others have their headquarters in nearby cities within the Tulsa district. This is more major oil headquarters than are possessed by all other centers in the Southwest combined. Including smaller companies, Tulsa has 658 oil companies.

There are excellent reasons why these companies selected Tulsa as headquarters. Tulsa is centrally situated in the Midcontinent, which is producing 67.4% of the nation's petroleum. She is also centrally situated with regard to the nation's oil pipe line and refining network. Practically all of the oil pipe lines to the North and East pass through the Tulsa area.

Tulsa is thus the natural hub of the nation's oil activities.

Despite the boom that the Texas Gulf Coast area is enjoying at this time, 368 wells are drilling in Oklahoma, to only 150 in the Texas Gulf Coast.

Tulsa is the headquarters of the Midcontinent Purchasing Agents Association, and is the oil equipment buying center of the world, purchases here totalling around $400,000,000 annually. Manufacturers and distributors of oil equipment may obtain additional information by writing the Tulsa Chamber of Commerce.

# TULSA

*Oil Capital of the World*

*Multiple*

# STAGE CEMENTING

- reduces by more than 50% the pressure usually required
- provides a measure of safety against dangerous blowouts
- protects . . . . and conserves shallow productive formations for later development
- has effected direct savings of $1000 to $2000 per well

**HALLIBURTON**
OIL WELL CEMENTING COMPANY
DUNCAN, OKLA.

- This folder tells the complete story . . . Write for your copy

**HOWCO**

**MULTIPLE STAGE CEMENTING**

# PERSONAL PARAGRAPHS

George W. Walton is now salesmanager of the Emsco-D. & B. Pump & Supply Company, at Dallas, Tex.

• • •

G. Arthur Burns, of Shell Petroleum Corporation, St. Louis, Mo., has sailed from New York for Europe.

• • •

Elmer G. Slaybaugh, foreman in the Pennsylvania Lubricating Company, has been awarded a 20-year service button.

• • •

W. S. Moore, general salesman in the Logan, W. Va., district of the Standard Oil Company of New Jersey, has been awarded a 30-year service button.

• • •

Basil R. Jackson, American representative for Anglo-Persian Oil Company, Ltd., sailed from New York last week with Mrs. Jackson for a visit to England.

• • •

W. T. Hardendorf, of Denver, Colo., was in Casper, Wyo., several days recently. He was on his way to Montana where he is interested in the Soap Creek oil field.

• • •

Samuel A. Smith, treasurer, and Walter Holen, manager of heavy oil department of W. H. Barber Company of Minneapolis, Minn., were visitors in the Mid-Continent last week.

• • •

Joe C. Smith, secretary of the Oil Trades Association of New York, is completing arrangements for the association's annual outing, which will be held at Travers Island on Thursday, June 22.

• • •

E. T. Knudsen, of the Petroleum Economics Division of the U. S. Bureau of Mines, was in southern California recently discussing the Bureau of Mines monthly report with independent refiners in an effort to increase its efficiency.

• • •

A. A. McMillan has been appointed agent for Imperial Oil, Ltd., at Peace River, Alberta, succeeding William Stewart. The latter, representative of the company for the past 15 years, has been named police magistrate for Peace River district.

• • •

A. R. Wilson, division manager, and Hugh A. Stewart, geological department, the Texas Company, with Denver, Colo., headquarters, were in Casper, Wyo., recently. Mr. Stewart continued his trip north into Montana while Mr. Wilson returned to Denver.

• • •

Ed McAdams, president of the North Kettleman Oil & Gas Company, has been active on the floor of the derrick for the past two weeks supervising fishing operations and the production test conducted on No. 1 Lillis-Welsh, the world's deepest well.

• • •

Michael C. Hall, of the Eagle refinery of the Standard Oil Company of New Jersey, at Jersey City, has been awarded a 40-year gold service emblem, with three diamonds, in recognition of his uninterrupted service at that plant. Mr. Hall, who started as storekeeper, is now foreman of the testing house.

• • •

Tulsa's delegation to the National Association of Purchasing Agents convention at Boston, Mass., on June 12-15, included H. M. Cosgrove, secretary; O. E. McClatchey, of Barnsdall Oil Company; G. A. Thompson, of the Empire Companies; H. D. Patridge, of Indian Territory Illuminating Oil Company; Harold B. Ward, of H. F. Wilcox Oil & Gas Company, past presidents; Paul W. Fenton, Tide Water Oil Company, president; H. E. Koopman, Phillips Petroleum Company; E. J. Boydstun, Turman Oil Company; H. H. Brown, Frick-Reid Supply Corporation; and W. H. Gray, of Happy Belting Company.

R. F. Mackin has been transferred from Tulsa to Longview, Tex., by the Smith Separator Company.

• • •

L. M. Lockhart, of Pasadena, Calif., is now making his operating headquarters in San Antonio, Tex.

• • •

W. L. Ogden, of the Standard Oil Company of New York, has sailed from New York for Europe, en route to Singapore.

• • •

Ward B. Powell, independent operator of Fort Worth, Tex., has been elected president of the Rotarians of Fort Worth.

• • •

Edward Pickett, advertising assistant for the Standard Oil Company of Louisiana at New Orleans, La., has received a 10-year service button.

## Men of the Industry

### C. M. LAMASON

Clarence M. Lamason, executive assistant, Louisiana Oil Refining Corporation (Cities Service) and president of the Louisiana-Arkansas Refiners Association, was born into the industry, his father and grandfather before him having been associated with the Standard Oil Company of New Jersey. His first experience as an "oil man" was gained at the end of a shovel during and immediately after high school days 20 years ago at the Bayonne plant of the Standard.

That was in 1913 and he did not stay there long, for in the same year he went to work for the Imperial Oil Company, Ltd., at Sarnia, Ontario, and stayed with it until 1918, being promoted from job to job until 1916, when he emerged as assistant manager of Imperial's plant at Ioco, Canada. In 1918 he left the Imperial and was engaged in refinery construction in Kentucky and Texas until 1921, when he joined the Pure Oil Company as executive in the sales department, which he helped organize, with headquarters in Chicago.

Mr. Lamason remained with the Pure company for seven years, going to the Louisiana Oil Refining Corporation as executive assistant in 1928 and upon the acquisition of that company by Cities Service (Arkansas Natural Gas Company) assumed the duties of manager of refining and bulk sales departments in addition to the responsibilities of executive assistant.

George Gibson, representing the C. H. Leach Company, of New York, is spending some time in Texas and the Mid-Continent.

• • •

W. L. Childs, vice president and general manager of the Reed Roller Bit Company, devoted several days to business in Tulsa last week.

• • •

Walter Schaefer, chief clerk in the comptroller's department of the Standard Oil Company of New Jersey, has been promoted to the post of assistant comptroller.

• • •

Fred Oglesby has been made land man of the Shell Petroleum Corporation at Wichita, Kans., and Robert Blakeley, scout, has been transferred from southern Oklahoma to the Kansas district.

• • •

Noyes B. Livingston, geologist with McElreath & Suggett, Fort Worth, Tex., addressed the Fort Worth Geological Society at its weekly luncheon on June 12, speaking on "Mineral and Rock Collecting."

• • •

Rollin Ecke, of the Wilshire Oil Company, presided at the annual election of officers and subsequent golf tournament conducted by the Los Angeles Petroleum Accountants Society early in June.

• • •

Prof. L. Ubbelohde, of Karlsruhe, has been elected chairman of the new German Oil Research Association, the deputy chairman being Prof. W. Schultz, of Clausthol-Zellerfeld, and Dipl.-Ing. Alfred Wirth, of Berlin.

• • •

M. E. Waldron, formerly head of the production department of Louisiana Oil Refining Corporation, has resigned to become president of the Apex Pipe Line Company, which will operate a gathering system in the East Texas Field.

• • •

Hugh Dugan, treater in the Bayonne refinery of the Standard Oil Company of New Jersey, has been transferred to Havana to become general shift foreman in the Belot refinery of the Standard Oil Company of Cuba, where he will specialize in treating lubricating oils.

• • •

J. H. Pence, of the Signal Engineering Company, was one of the busiest men on Signal Hill during the recent fire which followed explosion of the Richfield Oil Company's natural gasoline plant, as he has supervision over three wells located just around the rim of the devasted area.

• • •

Charles L. Sherwood, scout for Mid-Continent Petroleum Corporation in the Kansas district, has been transferred to Houston, Tex. He will be associated with F. E. Swenson, land man, and Cornelius Schnurr, geologist. Mr. Sherwood got his start in oil with the Prairie Oil & Gas Company.

• • •

Dr. R. C. Moore, state geologist and professor of the department of geology, and Dr. K. K. Landes, associate professor of geology, both of the University of Kansas, have been given grants for research by the National Research Council. Doctor Moore will study tratography and paleontology of the carboniferous formation in Wyoming, and Doctor Landes will seek facts on the origin of the molybdenite deposits of Colorado.

• • •

E. G. Allen, of Houston, Tex., has resigned as production manager of the Shell Petroleum Corporation, and G. R. Henson, of St. Louis, Mo., has been transferred to Houston to assume that position. R. D. Risser, formerly in charge of production in East Texas, has been named assistant to Mr. Henson and also has been transferred to Houston. E. L. Davenport, back from a trip to The Hague, Holland, and other places in Europe, has again resumed charge of the East Texas district, with headquarters at Kilgore.

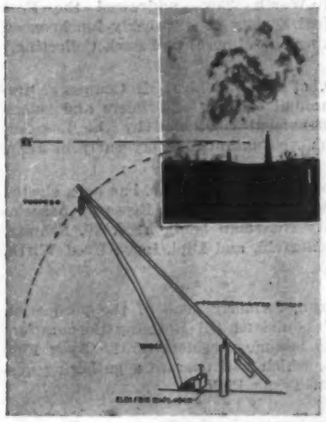
# FIELD PROBLEMS FROM READERS

Edited by Thomas F. Smiley

## What Actually Happens When Well Fires Are "Shot Out"?

I need some specific information in regard to the shooting of oil wells. I not only would like to have information on the methods employed in shooting for production, but I particularly seek facts regarding the extinguishing of oil well fires through use of explosives and what actually takes places when fires are put out in this way. I had best explain perhaps that I need this in class work.—J. A. S.

Relatively little has been published concerning the details of shooting out gas and oil well fires. The accompanying sketches explain three methods that may



NO. 1 METHOD

be followed. There are various modifications of these three methods which are employed to suit the peculiar conditions prevailing at any given fire.

With a gas well on fire the actual flame is usually several feet above the mouth of the well. This is because the velocity of the gas flowing from the tubing or casing is sufficient to force the burning portion of the gas column upward. Also it is necessary to have at least three parts of oxygen mixed with the gas before it is combustible. As the atmosphere contains only about 20 per cent of oxygen an appreciable time is required for the travel of the gas from the mouth of the well upward before sufficient air is mixed with it to burn.

In the laboratory you could demonstrate this with the regular Bunsen burner by excluding primary air, or air entering through the small hole at the base of the burner. If secondary air only is burned the flame will actually start above the burner tip, and this distance of free gas will vary with the velocity of the gas.

This rather elementary explanation has been given to prepare for the outline of methods used by shooters to put out gas fires. It is necessary so to place the explosive that the column of unlighted gas will be momentarily separated by the force of the explosion.

In the No. 1 method a long pole, usually made out of tubing, is pivoted in such a way as to permit the torpedo to be moved in the arc of a circle that will pass through the well location. This method is used for handling small charges of nitroglycerin. Both the observer and operator are stationed behind some form of shield to protect them against flying material.

**This department is conducted in order that men connected with the drilling, producing or transporting branches of the petroleum industry may obtain aid in solving problems that confront them in their work. Readers are invited to send questions freely. These questions will be placed in the hands of persons capable of answering them authoritatively, and the answers, based on the best available information, will be published.**

**Each question should give as much detail as possible, especially if it involves depth of sands, types of sands and operations on adjoining or nearby properties. The source of questions will be considered confidential, and only the initials of the sender will be published. Questions involving patented processes, intricate formulas or estimates of cost cannot be answered. If an immediate answer is important, one will be given by mail when the writer requests it.**

**In this connection, The Oil and Gas Journal will be glad to publish articles from field men who have devised new methods or improved old ones.**

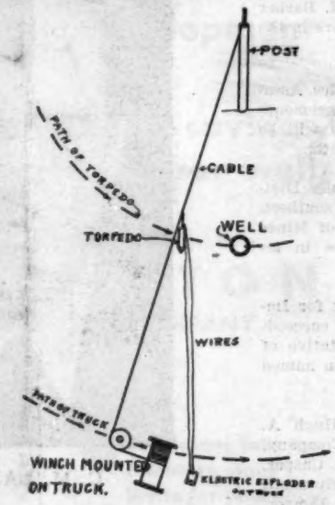
In each of the three methods described the torpedo is exploded when in position by a plunger-type battery. The electric current generated by this type of battery is conducted to the torpedo through copper wires. Neither battery nor wires is indicated in the No. 1 and No. 2 sketches. They may be placed at any convenient point, but the batteryman should be protected by a shield.

The No. 2 method is used for handling a larger charge or torpedo and consists of stretching a steel line between a post, at some distance from the burning well, and a winch mounted on a truck.

This steel line is extended to a winch mounted upon a truck. The torpedo will be suspended from the steel line at a point equal to the distance between the well and the post. The truck then will move in a circle so that the line will carry the torpedo into the zone of the gas above the mouth of the well. When this position has been reached the observer will signal the batteryman and he will explode the charge.

The No. 3 method is for handling a large charge from 25 to 50 quarts of solidified nitroglycerin and it requires two sturdy supports located on opposite sides of the burning well. A wire line is strung between sheaves carried on these two supports and the torpedo is attached to the lower portion of this line and drawn into or close to the well. The lines in the sketch are shown as passing close to the well and this method will be effective if the torpedo is properly handled. The wire line can pass through the unlighted portion of the gas safely but as this zone may vary in height from time to time it is usual practice to string the lines close to the edge of the flame.

The torpedo recommended for use in any of these methods should be of comparatively short length but large diameter. This concentrates the effect of the shot. The shell should be water jacketed and wrapped in asbestos. The top of the




NO. 2 METHOD

shell should be well filled with wet clay or mud to keep the flame from heating the charge too rapidly. Naturally the upper portion of the torpedo is nearest the flame and a good thick mud plug will protect the charge from the heat.

The methods so far described all cover shooting gas fires, but with the oil well fires the flame burns much closer to the top of the well and in some states it has been ruled that shooting of fires is unsafe.

The charge must be placed close to the top of the casing and as the effect of the explosion is downward as well as in all other directions it has been found that casing has been split beneath the ground after an oil fire has been shot out.

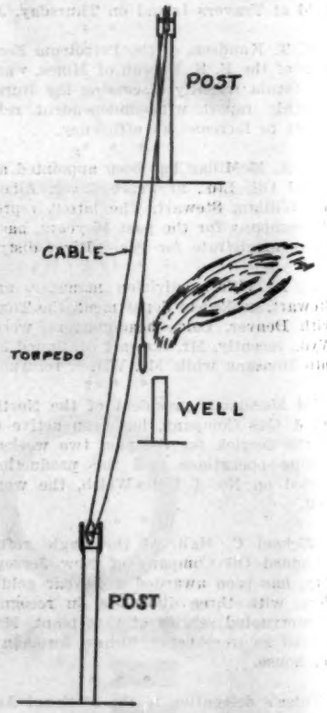
With any kind of fire all material must be removed from around the well. As all the wood will have burned this means that all metal parts left in the vicinity of the well must be dragged away before preparation for shooting is complete. The ground should be thoroughly soaked with water and streams of water kept on the fire during the shooting.

Shooters usually are attired in special asbestos suits and wear heavy asbestos gloves. They also wear goggles and while in the fire zone have streams of water poured over them all the time.

The quantity of solid nitroglycerin used for a shot in putting out a fire will vary from 5 quarts to 50 quarts. The average shot is about 20 quarts and if properly placed and exploded it usually will extinguish the fire.

When the shot is exploded the gas actually is cut off from the flame for a few seconds and the plume of fire will be seen to move upward. The gas which forms this flame is actually burned up before the fresh supply can come in contact with it and while the gas will continue to flow from the well after the shot it is not on fire.

The last operation is to bring this




NO. 3 METHOD

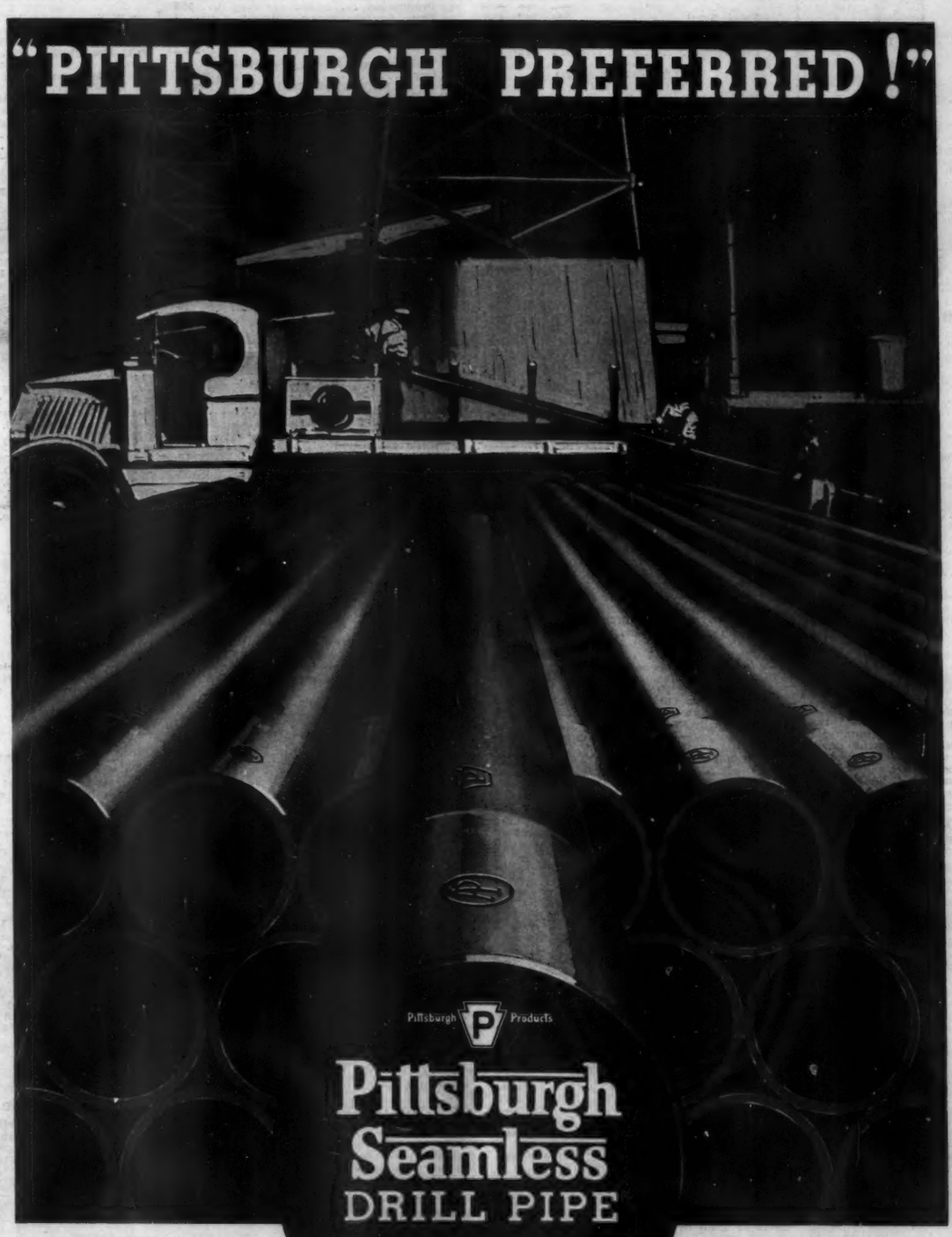
open gas flow under control by properly capping the well and shutting it in. This in itself is an operation requiring the services of experienced men.

For general information on the subject of well shooting it is suggested that you read what is said in "Deep Well Drilling," by Walter H. Jeffery. It would be well too if you would get in touch with a practical well shooter, who could give you details of his work.

## Why Was It Called That?

### FIRE

Fire, which has cost the oil industry millions of dollars, derives its name from the Anglo-Saxon "fyr." The ancients, regarding fire as a tenuous material, classed it, with air, earth and water, as one of the four elements. Modern oil companies adopt strict regulations to prevent loss of property by flames, and the man who deliberately violates these regulations soon finds himself without a job. They were even more severe in olden times. Among the Connecticut blue laws was one which provided: "Whoever sets a fire in the woods, and it burns a house, shall suffer death."




Storage Yards at Memphis, Tenn., and East San Pedro, Cal.

PITTSBURGH STEEL COMPANY
Pittsburgh, Pa.
New York Chicago St. Louis
Detroit Houston Tulsa
Los Angeles

# Summary of Operations in All Fields for April, 1933

**Summary of All Fields. Wells Completed**

| | Comp. | Prod. | Dry | Gas |
|---|---|---|---|---|
| Eastern | 56 | 221 | 7 | 12 |
| Central Ohio | 17 | 50 | 3 | 12 |
| Lima | 7 | 39 | 0 | 3 |
| Indiana | 4 | 25 | 2 | 0 |
| Michigan | 34 | 9,825 | 8 | 0 |
| Kentucky | 4 | 155 | 2 | 0 |
| Illinois | 1 | 0 | 1 | 0 |
| Kansas | 49 | 19,821 | 17 | 2 |
| Oklahoma | 85 | 42,069 | 31 | 4 |
| North Central Texas | 91 | 4,354 | 61 | 2 |
| E. Central & E. Tex. | 104 | 7,217 | 9 | 0 |
| West Texas | 34 | 6,891 | 9 | 0 |
| Texas Panhandle | 19 | 2,527 | 2 | 2 |
| Gulf Coast Texas | 114 | 143,962 | 16 | 1 |
| Southwest Texas | 55 | 10,591 | 49 | 7 |
| North Louisiana | 20 | 1,330 | 3 | 1 |
| Gulf Coast Louisiana | 12 | 7,190 | 5 | 0 |
| Arkansas | 3 | 0 | 3 | 0 |
| Mississippi | 3 | 0 | 3 | 0 |
| East Texas gas area | 1 | 0 | 1 | 0 |
| Montana | 3 | 65 | 3 | 1 |
| Wyoming | 2 | 0 | 1 | 1 |
| New Mexico | 9 | 9,730 | 2 | 0 |
| Total April | 747 | 266,162 | 241 | 46 |
| Total March | 811 | 259,201 | 278 | 57 |
| Difference | 64 | 6,961 | 37 | 9 |

**Rigs and Wells Drilling**

| | Rigs | Drlg. | Ttl. |
|---|---|---|---|
| Eastern | 33 | 119 | 152 |
| Central Ohio | 17 | 56 | 73 |
| Lima | 6 | 15 | 21 |
| Indiana | 3 | 52 | 55 |
| Michigan | 42 | 75 | 117 |
| Kentucky | 2 | 46 | 48 |
| Illinois | 1 | 11 | 12 |
| Kansas | 28 | 116 | 144 |
| Oklahoma | 106 | 262 | 368 |
| North Central Texas | 30 | 116 | 146 |
| E. Central & E. Tex. | 46 | 123 | 169 |
| West Texas | 23 | 93 | 116 |
| Texas Panhandle | 15 | 35 | 50 |
| Gulf Coast Texas | 13 | 137 | 150 |
| Southwest Texas | 20 | 146 | 166 |
| North Louisiana | 36 | 107 | 143 |
| Gulf Coast Louisiana | 7 | 33 | 40 |
| Arkansas | 9 | 33 | 42 |
| Mississippi | 3 | 15 | 18 |
| Alabama | 0 | 4 | 4 |
| East Texas gas area | 1 | 17 | 18 |
| Montana | 2 | 33 | 35 |
| Utah | 0 | 15 | 15 |
| Wyoming | 9 | 57 | 66 |
| Colorado | 6 | 55 | 61 |
| New Mexico | 6 | 55 | 61 |
| Total April | 464 | 1,826 | 2,290 |
| Total March | 492 | 1,838 | 2,330 |
| Difference | 28 | 12 | 40 |

Note—In the following report the Section, Township and Range are given first; then the farm, the owner, the serial number of the well and the initial production of the well. In lines where the Section, Township and Range are missing the wells are located in the Sections, Townships and Ranges which appear next above in the report.

## Oklahoma Fields

**Summary of Wells Completed**

| County— | Comp. | Prod. | Dry | Gas |
|---|---|---|---|---|
| Atoka | 1 | 0 | 1 | 0 |
| Carter | 4 | 314 | 0 | 0 |
| Creek | 15 | 250 | 10 | 0 |
| Hughes | 6 | 368 | 2 | 0 |
| Kay | 1 | 0 | 0 | 1 |
| Jefferson | 3 | 170 | 1 | 0 |
| Muskogee | 3 | 75 | 2 | 0 |
| McCurtain | 1 | 0 | 1 | 0 |
| Oklahoma | 14 | 29,598 | 0 | 1 |
| Okmulgee | 3 | 9 | 3 | 0 |
| Okfuskee | 4 | 52 | 1 | 0 |
| Osage | 3 | 268 | 0 | 0 |
| Pottawatomie | 6 | 985 | 2 | 0 |
| Pawnee | 1 | 0 | 1 | 0 |
| Pontotoc | 6 | 240 | 3 | 1 |
| Seminole | 8 | 9,129 | 1 | 0 |
| Stephens | 3 | 75 | 2 | 0 |
| Tulsa | 3 | 25 | 1 | 1 |
| Wagoner | 3 | 30 | 0 | 0 |
| Total April | 85 | 42,669 | 31 | 4 |
| Total March | 80 | 10,796 | 25 | 6 |
| Difference | 5 | 31,871 | 6 | 2 |

**Summary of Rigs and Wells Drilling**

| County— | Rigs | Drlg. | Ttl. |
|---|---|---|---|
| Atoka | 0 | 3 | 3 |
| Beckham | 0 | 1 | 1 |
| Caddo | 1 | 5 | 6 |
| Cleveland | 1 | 0 | 1 |
| Coal | 0 | 3 | 3 |
| Creek | 12 | 32 | 44 |
| Carter | 2 | 6 | 8 |
| Comanche | 0 | 3 | 3 |
| Garvin | 2 | 0 | 2 |
| Garfield | 0 | 2 | 2 |
| Grant | 0 | 1 | 1 |
| Hughes | 6 | 23 | 29 |
| Jefferson | 2 | 4 | 6 |
| Kay | 0 | 3 | 3 |
| Logan | 1 | 4 | 5 |
| Marshall | 0 | 5 | 5 |
| Muskogee | 1 | 3 | 4 |
| Murray | 1 | 0 | 1 |
| Noble | 5 | 7 | 12 |
| Oklahoma | 22 | 20 | 42 |
| Osage | 10 | 19 | 29 |
| Okmulgee | 6 | 20 | 26 |
| Okfuskee | 2 | 8 | 10 |
| Payne | 0 | 7 | 7 |
| Pottawatomie | 9 | 26 | 35 |
| Pittsburg | 2 | 3 | 5 |
| Pontotoc | 6 | 16 | 22 |
| Seminole | 1 | 9 | 10 |
| Stephens | 6 | 7 | 13 |
| Tillman | 0 | 2 | 2 |
| Tulsa | 7 | 8 | 15 |
| Wagoner | 1 | 6 | 7 |
| Washita | 0 | 1 | 1 |
| Total April | 106 | 262 | 368 |
| Total March | 79 | 280 | 359 |
| Difference | 27 | 18 | 9 |

**WELLS COMPLETED**

**ATOKA COUNTY**

19-1-15 George et al 1 ..... dry

Wells completed ..... 1
Dry ..... 1

**CARTER COUNTY**

30-1s-2w G. L. Pace 2 ..... 25
25-1s-3w Daphfine Oil Co. 2 ..... *535
19-1s-2w Carter Oil Co. 3 ..... 77
19-1s-2w Carter Oil Co. 4 ..... 187

Wells completed ..... 4
Production ..... 814

*Four hours.

**CREEK COUNTY**

7-19- 9 Porter et al 1 ..... dry
1-18- 8 Swift et al 1 ..... 25
8-17-10 Curtis Oil Co. 1 ..... dry
32-17-11 Sherry et al 7 ..... 10
10-15- 7 S. Hall 1 ..... dry
23-15- 7 O. O. Owens 1 ..... dry
29-14- 7 Sinclair Prairie Oil Co. 1 ..... dry
1-18- 8 B. Swift et al 1 ..... 25
34-16- 9 Herdan & Buell 1 ..... dry
30-15-10 W. H. Elson et al 1 ..... dry
1-14- 9 Sovereign Oil Co. 1 ..... dry
26-17-11 Whittington & Page 1 ..... dry
2-18- 9 Westfall Drlg. Co. 1 ..... dry
34-18- 8 Marrs et al 1 ..... 185
32-17-10 Steckoll 1 ..... 5

Wells completed ..... 15
Production ..... 250
Dry ..... 10

**HUGHES COUNTY**

9-5-11 Redwine et al 1 ..... dry
15-7- 8 McCoy et al 1 ..... 70
9-7- 8 Boetcher O. & G. Co. 2 ..... 163
22-7- 8 O. Tilley 1 ..... 60
14-7- 8 Fleetborn Oil Co. 1 ..... dry
15-7- 8 McCoy et al 1 ..... 70

Wells completed ..... 6
Production ..... 368
Dry ..... 2

**KAY COUNTY**

17-29-1 Harris-Haun 1 ..... gas

Wells completed ..... 1
Gas ..... 1
Gas production ..... 13,000,000

**JEFFERSON COUNTY**

3-7s-5w Farlyn Oil Co. 6 ..... 150
3-7s-5w Farlyn Oil Co. 7 ..... 20
3-7s-6w Bridwell Oil Co. 1 ..... dry

Wells completed ..... 3
Production ..... 170
Dry ..... 1

**MUSKOGEE COUNTY**

12-14-16 Okla. Oil Corp. 1 ..... dry
18-14-18 Simmins et al 1 ..... dry
6-14-19 Metzger & Foltz 4 ..... 75

Wells completed ..... 3
Production ..... 75
Dry ..... 2

**McCURTAIN COUNTY**

4-8s-27 H. J. Shaffer 1 ..... dry

Wells completed ..... 1
Dry ..... 1

**OKLAHOMA COUNTY**

22-11-3w Helmerich & Payne 1 ..... *4255
35-12-3w Wirt Franklin Pet. Corp. 1 .. gas
22-11-3w Phillips Pet. Co. 1 ..... *2596
22-11-3w Phillips Pet. Co. 1 ..... *2759
22-11-3w Phillips Pet. Co. 1 ..... *1375
22-11-3w Phillips Pet. Co. 1 ..... *1074
22-11-3w Phillips Pet. Co. 1 ..... *2658
22-11-3w Phillips Pet. Co. 1 ..... *1428
22-11-3w Transit Oil Co. 1 ..... *1656
22-11-3w Phillips Pet. Co. 2 ..... *916
22-11-3w Phillips Pet. Co. 2 ..... *3332
22-11-3w Phillips Pet. Co. 2 ..... *3573
15-11-3w Mid-Texas Co. 2 ..... *1804
22-11-3w Inland Dev. Co. 1 ..... *1913

Wells completed ..... 14
Production ..... 29,598
Gas ..... 1
Gas production ..... 154,000,000

*Four hours.

**OKMULGEE COUNTY**

18-14-14 R. Vincent 1 ..... dry
18-14-15 J. F. Henthorne 3 ..... dry
26-16-11 Trail et al 1 ..... dry

Wells completed ..... 3
Dry ..... 3

**OKFUSKEE COUNTY**

13-11-11 P. Doolin et al 1 ..... 20
33-11-11 Anderson-Prichard Oil Corp. 2 12
35-11-11 McBroyer & Avers 1 ..... 30
21-11-11 Steckoll 1 ..... dry

Wells completed ..... 4
Production ..... 52
Dry ..... 1

**OSAGE COUNTY**

23-24-7 Lewis Prod. Co. 3 ..... 168
34-21-9 Ohio Osage 1 ..... 40
25-24-8 The Texas Co. 5 ..... 50

Wells completed ..... 3
Production ..... 258

**POTTAWATOMIE COUNTY**

14-7-4 Terry et al 2 ..... 211
28-7-4 Okla. Oil Corp. 1 ..... dry
25-8-4 Huckleberry 1 ..... dry
25-6-4 Gypsy Oil Co. 1 ..... 644
31-7-4 Mid-Cont. Pet. Corp. 1 ..... 115
29-7-4 Phillaine Oil Co. 1 ..... 15

Wells completed ..... 6
Production ..... 985
Dry ..... 2

**PAWNEE COUNTY**

20-20-10 H. D.-Hambley 2 ..... dry

Wells completed ..... 1
Dry ..... 1

**PONTOTOC COUNTY**

30-2-7 Delaney 1 ..... gas
28-5-5 Mason et al 1 ..... dry
32-5-8 H. & M. Drlg. Co. 1 ..... dry
28-4-7 Hughes et al 1 ..... dry
30-5-5 Deaner O. & G. Co. 1 ..... 100
30-5-5 Benedum & Trees 2 ..... 140

Wells completed ..... 6
Production ..... 240
Dry ..... 3
Gas ..... 1
Gas production ..... 50,000,000

**SEMINOLE COUNTY**

29- 9-6 Amerada Pet. Corp. 3 ..... 1967
36- 6-7 Stanolind O. & G. Co. 1 ..... 2525
8- 9-6 Gypsy Oil Co. 1 ..... 2300
2-10-6 Carter Oil Co. et al 1 ..... *2327
36-11-6 Barnsdall Oil Co. 1 ..... dry
11- 6-6 Harris-Hays 1 ..... 10

Wells completed ..... 6
Production ..... 9129
Dry ..... 1

*Twenty-three hours.

**STEPHENS COUNTY**

22-2s-7w G. L. Pace 6 ..... 75
12-3s-5w Bridwell Oil Co. 1 ..... dry
35-2s-6w G. L. Pace 1 ..... dry

Wells completed ..... 3
Production ..... 75
Dry ..... 2

**TULSA COUNTY**

28-17-13 McFadden et al 1 ..... 35
11-19-10 C. A. Mundis 1 ..... dry
32-19-11 Lovett et al 1 ..... gas

Wells completed ..... 3
Production ..... 25
Dry ..... 1
Gas ..... 1
Gas production ..... 3,000,000

**WAGONER COUNTY**

22-18-15 Dunbar et al 1 ..... 10
26-18-15 J. E. Martin 2 ..... 20

Wells completed ..... 2
Production ..... 30

## Kansas Fields

**Summary of Wells Completed**

| County | Comp. | Prod. | Dry | Gas |
|---|---|---|---|---|
| Barton | 3 | 100 | 2 | 0 |
| Butler | 1 | 0 | 1 | 0 |
| Cowley | 1 | 337 | 0 | 0 |
| Ellsworth | 3 | 1,085 | 0 | 0 |
| Ellis | 1 | 0 | 1 | 0 |
| Greenwood | 9 | 95 | 6 | 0 |
| Harvey | 6 | 6,954 | 1 | 0 |
| McPherson | 11 | 5,346 | 3 | 1 |
| Marion | 1 | 0 | 1 | 0 |
| Reno | 3 | 535 | 0 | 1 |
| Rice | 2 | 632 | 1 | 0 |
| Russell | 1 | 168 | 0 | 0 |
| Sedgwick | 3 | 4,345 | 0 | 0 |
| Woodson | 3 | 324 | 1 | 0 |
| Total April | 49 | 19,821 | 17 | 2 |
| Total March | 33 | 13,981 | 7 | 1 |
| Difference | 16 | 5,840 | 10 | 1 |

**Summary of Rigs and Wells Drilling**

| County— | Rigs | Drlg. | Total |
|---|---|---|---|
| Barton | 1 | 4 | 5 |
| Butler | 1 | 2 | 3 |
| Cowley | 1 | 3 | 4 |
| Ellis | 0 | 1 | 1 |
| Ellsworth | 1 | 6 | 7 |
| Graham | 0 | 1 | 1 |
| Greenwood | 1 | 6 | 7 |
| Harvey | 6 | 22 | 28 |
| Kingman | 1 | 0 | 1 |
| McPherson | 10 | 35 | 45 |
| Pratt | 0 | 1 | 1 |
| Reno | 1 | 7 | 8 |
| Rice | 2 | 7 | 9 |
| Russell | 0 | 3 | 3 |
| Rooks | 1 | 0 | 1 |
| Sedgwick | 0 | 7 | 7 |
| Sumner | 0 | 4 | 4 |
| Saline | 0 | 1 | 1 |
| Stafford | 0 | 1 | 1 |
| Trego | 0 | 1 | 1 |
| Woodson | 2 | 4 | 6 |
| Total April | 28 | 116 | 144 |
| Total March | 27 | 88 | 115 |
| Difference | 1 | 28 | 29 |

**WELLS COMPLETED**

**BARTON COUNTY**

12-17-10w Slick, Pryor & Lockhart 1 .. 100
15-16-12w Vickers Pet. Co. 1 ..... dry
16-19-14w Skelton Oil Co. 1 ..... dry

Wells completed ..... 3
Production ..... 100
Dry ..... 2

**BUTLER COUNTY.**

5-27-6 Rainey et al 3 ..... dry

Wells completed ..... 1
Dry ..... 1

**COWLEY COUNTY**

22-32-4 Davis et al 1 ..... 337

Wells completed ..... 1
Production ..... 337

**ELLSWORTH COUNTY**

28-17-10w Shawver et al ..... dry
7-17-10w Magnolia Pet. Co. 1 ..... 125
1-17-10w Eldorado Ref. Co. ..... 960

Wells completed ..... 3
Production ..... 1085

**ELLIS COUNTY**

33-11-17w Phillips Pet. Co. 1 ..... dry

Wells completed ..... 1
Dry ..... 1

**GREENWOOD COUNTY**

33-22-10 Harwood et al 1 ..... dry
28-24-12 Kites & Hubbard 1 ..... dry
10-22-12 Rex et al 1 ..... dry
15-22-12 Ellis et al 1 ..... dry
8-25-13 Mendall et al 5 ..... 25
7-25- 9 Lilly et al 2 ..... 25
17-24-10 Royle et al 1 ..... dry
14-22-11 Empire O. & R. Co. 1 ..... 45
22-23-12 Theta Oil Co. 1 ..... dry

Wells completed ..... 9
Production ..... 95
Dry ..... 6

**HARVEY COUNTY**

19-22-3w Mabee et al 4 ..... 1000
30-23-2 Phillips Pet. Co. ..... dry
8-22-3w The Texas Co. et al 1 ..... 750
5-22-3w Sinclair Prairie Oil Co. 1 ... 617
17-22-3w Derby Oil Co. 1 ..... 2733
4-22-3w Shell Pet. Corp. 1 ..... 1854

Wells completed ..... 6
Production ..... 6954
Dry ..... 1

**McPHERSON COUNTY**

26-19-2w Roland et al 1 ..... dry
20-19-1w Harris & Haun 3 ..... gas
24-21-3w Lario O. & G. Co. 2 ..... 1354
23-20-1w Gypsy Oil Co. 2 ..... 725
20-19-1w Darby Pet. Co. 1 ..... 61
19-19-2w Wolf Creek Oil Co. 1 ..... 200
23-21-3w Mid-Kansas O. & G. Co. 2 .... 218
34-21-3w Lario O. & G. Co. 2 ..... 1196
24-20-4w Lario O. & G. Co. 1 ..... dry
24-21-3w Lario O. & G. Co. 1 ..... 1592
21-21-3w The Texas Co. 1 ..... dry

Wells completed ..... 11
Production ..... 5346
Dry ..... 3
Gas ..... 1
Gas production ..... 28,000,000

**MARION COUNTY**

21-19-4 Farrell et al 1 ..... dry

Wells completed ..... 1
Dry ..... 1

**RENO COUNTY**

26-23-4w Sinclair Prairie Oil Co. 1 ... 25
26-23-4w Sinclair Prairie Oil Co. 2 ... gas
35-23-4w Olsen Oil Co. et al 1 ..... 510

Wells completed ..... 3
Production ..... 535
Gas ..... 1
Gas production ..... 16,000,000

**RICE COUNTY**

3-21- 6w Rogers et al 1 ..... 192
32-19- 9w R. Ramsey et al 1 ..... 440
22-20-16w Shawver et al ..... dry

Wells completed ..... 3
Production ..... 632
Dry ..... 1

**RUSSELL COUNTY**

16-11-15w J. Liggett 1 ..... 168

Wells completed ..... 1
Production ..... 168

**SEDGWICK COUNTY**

14-26-2 Gypsy Oil Co. 8 ..... 1187
14-26-2 Gypsy Oil Co. 9 ..... 1003
15-26-2 Shell Pet. Corp. 6 ..... 2155

Wells completed ..... 3
Production ..... 4345

**WOODSON COUNTY**

24-25-13 Sheedy et al 1 ..... 6
2-24-13 H. Partridge 1 ..... dry
19-25-14 Sheedy et al 1 ..... 218

Wells completed ..... 3
Production ..... 224
Dry ..... 1

## Panhandle Fields

**Summary of Wells Completed**

| County— | Comp. | Prod. | Abd. | Gas |
|---|---|---|---|---|
| Carson | 4 | 5 | 0 | 2 |
| Gray | 10 | 1,599 | 1 | 0 |
| Hutchinson | 4 | 845 | 1 | 0 |
| Wheeler | 1 | 75 | 0 | 0 |
| Total April | 19 | 2,527 | 2 | 2 |
| Total March | 14 | 2,049 | 1 | 2 |
| Difference | 5 | 478 | 1 | 0 |

**Summary of Rigs and Wells Drilling**

| County— | Rigs | S.D. | Drlg. | Ttl. |
|---|---|---|---|---|
| Carson | 1 | 0 | 3 | 4 |
| Gray | 6 | 8 | 7 | 21 |
| Hemphill | 0 | 0 | 1 | 1 |
| Hutchinson | 7 | 2 | 4 | 13 |
| Moore | 0 | 1 | 2 | 3 |
| Oldham | 0 | 1 | 0 | 1 |
| Roberts | 0 | 0 | 1 | 1 |
| Wheeler | 1 | 4 | 1 | 6 |
| Total April | 15 | 16 | 19 | 50 |
| Total March | 10 | 14 | 25 | 49 |
| Difference | 5 | 2 | 6 | 1 |

**WELLS COMPLETED**

**CARSON COUNTY**

Silk et al No. 1-A Scarborough ..... abd
Texas Interstate Pipe Line Co. No. 1-97
Burnett ..... gas

R. R. Osborne No. 1 Lyrun ..... 8
Texoma Natural Gas Co. No. 1-S Gores. gas

Completions ..... 4
Initial production ..... 8
Gas wells ..... 2

GRAY COUNTY

Sinclair Prairie Oil Co. No. 1-E Combs Worley ..... 192
Paul Throp No. 1-B Short ..... 180
Baldridge Oil Co. No. 1 Molten ..... 20
Cosmos Oil Co. No. 1 Catlin ..... 360
G. S. Travis No. 1 Back ..... abd
Baldridge No. 1 Catlin ..... 360
Quicksand Oil Co. No. 2 Chapman ..... 350
Skelly Oil Co. No. 1 Gethings ..... 61
The Texas Company No. 1 Gethings ... 56
Gray County Production Co. No. 1 Hus-ley ..... 20

Completions ..... 10
Initial production ..... 1599
Abandoned ..... 1

HUTCHINSON COUNTY

Palo Duro Oil Co. No. 4 Smith ..... abd
Huber Petroleum Co. No. 1-C Johnson.. 500
Joe Murphy No. 1 Walkins ..... 270
H. Stekol No. 1 Whittenburg ..... 75

Completions ..... 4
Initial production ..... 845
Abandoned ..... 1

WHEELER COUNTY

Devore & Robinson No. 1 Sitter ..... 75

Completions ..... 1
Initial production ..... 75

## East Texas Fields

**Summary of Wells Completed**

| County— | Comp. | Prod. | Abd. | Gas |
|---|---|---|---|---|
| Anderson | 2 | 0 | 2 | 0 |
| Cherokee | 1 | 0 | 1 | 0 |
| Gregg | 43 | 3,718 | 1 | 0 |
| Hopkins | 1 | 0 | 1 | 0 |
| Hill | 1 | 0 | 1 | 0 |
| Lamar | 1 | 0 | 1 | 0 |
| Leon | 1 | 0 | 1 | 0 |
| Rusk | 44 | 2,927 | 0 | 0 |
| Smith | 3 | 217 | 0 | 0 |
| Upshur | 7 | 345 | 1 | 0 |
| Total April | 104 | 7,217 | 9 | 0 |
| Total March | 137 | 8,125 | 9 | 0 |
| Difference | 33 | 908 | 0 | 0 |

**Rigs and Wells Drilling**

| County— | Rigs | S.D. | Drlg. | Ttl. |
|---|---|---|---|---|
| Angelina | 0 | 3 | 0 | 3 |
| Bowie | 0 | 2 | 0 | 2 |
| Cherokee | 2 | 1 | 2 | 5 |
| Delta | 0 | 1 | 0 | 1 |
| Ellis | 0 | 4 | 1 | 5 |
| Fannin | 0 | 1 | 0 | 1 |
| Franklin | 0 | 1 | 0 | 1 |
| Freestone | 0 | 1 | 0 | 1 |
| Gregg | 18 | 9 | 20 | 47 |
| Henderson | 1 | 2 | 0 | 3 |
| Hill | 0 | 0 | 1 | 1 |
| Hopkins | 1 | 1 | 0 | 2 |
| Kaufman | 0 | 1 | 0 | 1 |
| Limestone | 1 | 1 | 0 | 2 |
| Morris | 0 | 2 | 0 | 2 |
| Navarro | 0 | 1 | 0 | 1 |
| Red River | 1 | 2 | 0 | 3 |
| Rusk | 13 | 17 | 24 | 54 |
| Smith | 3 | 1 | 3 | 6 |
| Upshur | 3 | 4 | 8 | 15 |
| Van Zandt | 4 | 4 | 4 | 12 |
| Wood | 0 | 0 | 1 | 1 |
| Total April | 46 | 59 | 64 | 169 |
| Total March | 50 | 51 | 60 | 161 |
| Difference | 4 | 8 | 4 | 8 |

WELLS COMPLETED

ANDERSON COUNTY

Barcley et al's No. 1 J. G. Beard ..... abd
W. L. Tarkington et al's No. 1-A J. G. Beard ..... abd

Wells completed ..... 2
Abandoned ..... 2

CHEROKEE COUNTY

Loring Oil Co.'s No. 1 F. M. Sweargin.. abd

Wells completed ..... 1
Abandoned ..... 1

GREGG COUNTY

Gulf Prod. Co.'s No. 24 Sheppard, ¾-in. tubing choke ..... 100
Magnolia Pet. Co.'s No. 14 Everett, ¾-in. tubing choke ..... 85
F. W. Merrick, Inc.'s No. 8 W. R. Nicholson, open tubing ..... 64
B. F. Phillips' No. 1 League, open tubing tapered tubing ..... 125
A. D. Robinson's No. 4 LeRoy Rodden, through open tubing ..... 45
The Texas Co.'s No. 8 Woods, ¼ hr. ..... 32
Yount Lee Oil Co.'s No. 3-B F. K. Lathrop, 11/16-in. tubing choke ..... 62
Gulf Prod. Co.'s No. 5 T. C. Reeves, 2-in. tubing ..... 93
E. Lacy's No. 1 fee, open tubing ..... 120
Magnolia Pet. Co.'s No. 6 M. T. Cole, open tubing ..... 136
Rhoads Drilling Co.'s No. 11 Sabine River, open tubing, ½ hr. ..... 50
Sun Oil Co.'s No. 22 M. T. Cole, tapered tubing ..... 45
The Texas Co.'s No. 13 M. T. Cole, open tubing ..... 95
Fain & McGaha's No. 7 A. Tooke, open tubing ..... 175
Gulf Prod. Co.'s No. 5 Fishburn, ¾-in. tubing choke ..... 80
Humble Oil & Ref. Co.'s No. 11 H. M. Lawrence, ¾-in. tubing ..... 39
Humble Oil & Ref. Co.'s No. 8 G. W. Willingham, ¾-in. tubing ..... 68
Rajo Oil Co.'s No. 4 Barrett, ¾-in. tubing choke ..... 75
Swain-Holcomb & Hamilton's No. 1, Block 122, 1-in. tubing, ½ hr. ..... 30
Atlantic Oil & Prod. Co.'s No. 10 S. G. Andrews, casing ..... 148
Magnolia Pet. Co.'s No. 11 J. Radford, open tubing ..... 168
Reserve Pet. Co.'s No. 2 A. Godfrey, open tubing ..... 88
Gulf Prod. Co.'s No. 15 S. G. Fishburn, open tubing ..... 100
Humble Oil & Ref. Co.'s No. 13 T. M. Armstrong, ¾-in. tubing ..... 75
Manzell et al's No. 2 Walker, open tubing, ½ hr. ..... 40
Rajo Oil Co.'s No. 2 Barrett, open tubing 100
Cargill & Dudley's No. 5 England, open tubing, ½ hr. ..... 35
H. A. McComas' No. 1 J. S. and F. Elder ..... abd
Gulf Prod. Co.'s No. 16 W. Holt, ¾-in. tubing ..... 75
McWhorter, Receiver No. 2 N. Jobe, open tubing ..... 85
Mid-Field Oil Co.'s No. 1 L. Martin, ¾-in. tubing choke ..... 75
J. C. Means' No. 4 W. P. Luce, open tubing ..... 80
Gulf Prod. Co.'s No. 14 S. C. Fishburn, open tubing ..... 100
J. T. Hill's No. 1 J. M. Christian, ¾-in. tubing ..... 80
J. T. Hill's No. 2 Christian, ¾-in. tubing choke ..... 75
Magnolia Pet. Co.'s No. 15 L. J. Everett, 1-in. tubing choke 15 ..... 230
Gulf Prod. Co.'s No. 8 Birdsong, ¾-in. tubing choke ..... 75
F. V. Hughes' No. 1 S. Carr, ¾-in. tubing choke ..... 80
Invincible Oil Co.'s No. 7 Weiss, open tubing, ½ hr. ..... 60
Magnolia Pet. Co.'s No. 12 J. Radford, open tubing ..... 146
Shell Pet. Corp.'s No. 13-A B. F. Laird, ¾-in. tubing choke ..... 65
Sun Oil Co.'s No. 4 A. G. Morton, by heads ..... 100
The Texas Co.'s No. 15 M. T. Cole, open tubing ..... 98

Wells completed ..... 43
Initial production ..... 3718
Abandoned ..... 1

HOPKINS COUNTY

Hager and Ashby's No. 1 H. Smith..... abd

Wells completed ..... 1
Abandoned ..... 1

HILL COUNTY

Mahon et al's No. 1 McGuffey ..... abd

Wells completed ..... 1
Abandoned ..... 1

LAMAR COUNTY

Doyle and Jondeau's No. 1 Martin ..... abd

Wells completed ..... 1
Abandoned ..... 1

LEON COUNTY

Leon County Oil Co.'s No. 1 John Morris abd

Wells completed ..... 1
Abandoned ..... 1

RUSK COUNTY

Darby Pet. Co.'s No. 9-B C. O. Christian, ¾-in. tubing ..... 74
Humble Oil & Ref. Co.'s No. 72 L. D. Crim, ¾-in. tubing ..... 90
Culvey & Gray's No. 2 Brightwell, ¾-in. tubing choke ..... 35
Hunt Prod. Co.'s No. 6 Ashby, pumping 10
Jackson-Wise and Snowden's No. 4 J. H. Stewart, open tubing, 20 min. ..... 50
Kirby Pet. Co.'s No. 5 Joe Williams, open tubing ..... 200
Mid-Kansas Oil & Gas Co.'s No. 38 W. T. Grissom, open tubing, ¼ hr. ..... 25
Mid-Kansas Oil & Gas Co.'s No. 13 M. A. Price, open tubing, ¼ hr. ..... 20
E. L. Pinkston's No. 1 L. J. Pinkston, open tubing, ½ hr. ..... 40
Darby Pet. Co.'s No. 8-B C. O. Christian, ¾-in. tubing choke ..... 75
V. R. Hatcher's No. 1 Morris, open tubing ..... 65
Humble Oil & Ref. Co.'s No. 73 L. D. Crim, ¾-in. tubing ..... 75
Humble Oil & Ref. Co.'s No. 17-B H. Sexton, ¾-in. tubing ..... 65
Humble Oil & Ref. Co.'s No. 1-B Clayton Young, ¾-in. tubing ..... 75
Magnolia Pet. Co.'s No. 9 J. C. Bradberry, 1-in. tubing ..... 25
Sinclair Prairie Oil Co.'s No. 4-B Major Kennedy, open tubing ..... 36
A. P. Cary's No. 2 Redwine, open tubing, 35 min. ..... 20
Gulf Prod. Co.'s No. 21 C. G. Turner, ¾-in. tubing ..... 90
Humble Oil & Ref. Co.'s No. 10 J. R. Box, ¾-in. tubing ..... 76
Humble Oil & Ref. Co.'s No. 32-A Kangerga, ¾-in. tubing, ½ hr. ..... 19
Humble Oil & Ref. Co.'s No. 7 Charles Pilgreen, ¾-in. tubing ..... 70
Humble Oil & Ref. Co.'s No. 11-A A. L. Walker, ¾-in. tubing ..... 149
Hunt Prod. Co.'s No. 3-F Bradford, pumping ..... 8
Mid-Kansas Oil & Gas Co.'s No. 42 W. T. Grissom, 2-in. lead ..... 92
Mid-Kansas Oil & Gas Co.'s No. 3 T. O. Warren, 2-in. lead ..... 120
Gulf Prod. Co.'s No. 4 O. R. Baton, 4½-in. casing ..... 60
Gulf Prod. Co.'s No. 13-A C. E. Christian, ¾-in. tubing ..... 70
Humble Oil & Ref. Co.'s No. 83 Crim, ¾-in. tubing ..... 109
Humble Oil & Ref. Co.'s No. 19-A S. S. Laird, ¾-in. tubing ..... 56
Humble Oil & Ref. Co.'s No. 4-B W. P. Moore, ¾-in. tubing ..... 75
Humble Oil & Ref. Co.'s No. 6-A J. E. Sexton, ¾-in. tubing ..... 65
Magnolia Pet. Co.'s No. 6 N. Bean, per day, by heads ..... 75
Devonian Oil Co.'s No. 9 W. O. Alford, ¾-in. tubing, ½ hr. ..... 38
Humble Oil & Ref. Co.'s No. 6-A R. A. Barksdale, ¾-in. tubing ..... 24
Humble Oil & Ref. Co.'s No. 11 J. E. Glover, ¾-in. tubing ..... 97
Humble Oil & Ref. Co.'s No. 8-A J. H. Silvey, ¾-in. tubing ..... 75
Gulf Prod. Co.'s No. 2 W. A. Hindman, open tubing ..... 80
Humble Oil & Ref. Co.'s No. 81 L. D. Crim, ¾-in. tubing ..... 100
Kirby Pet. Co.'s No. 8 J. Reddic, open tubing ..... 85
T. S. Schroeder's No. 1 Major Kennedy, open tubing ..... 50
Gulf Prod. Co.'s No. 22 C. G. Turner, open tubing ..... 60
Humble Oil & Ref. Co.'s No. 8 W. B. Key, ¾-in. tubing ..... 50
Humble Oil & Ref. Co.'s No. 21-A S. A. Plowman, ¾-in. tubing ..... 50
Humble Oil & Ref. Co.'s No. 5-B J. E. Sexton, ¾-in. tubing ..... 75

Wells completed ..... 44
Initial production ..... 2937

SMITH COUNTY

Sneed et al's No. 1 Church Lot, open tubing, ½ hr. ..... 40
H. L. Hunt's No. 9-A R. W. Fair, ¾-in. tubing ..... 75
The Texas Co.'s No. 7-B Jarvis, open 2-in. tubing ..... 102

Wells completed ..... 3
Initial production ..... 217

UPSHUR COUNTY

Wadley and Lyons' No. 1 Hall ..... abd
Magnolia Pet. Co.'s No. 12 H. Hampton, 1-in. tubing ..... 100
Magnolia Pet. Co.'s No. 13 H. Hampton, 1-in. tubing ..... 90
B. F. Phillips' No. 2 Carrie Brooks, open tubing ..... 65
The Texas Co.'s No. 2 Williams, open tubing, by heads ..... 20
W. C. Buntley's No. 1 Brawley heirs, open tubing ..... 30
Travis and Weir's No. 1 L. P. League, open tubing ..... 40

Wells completed ..... 7
Initial production ..... 345
Abandoned ..... 1

## West Texas Fields

**Summary of Wells Completed**

| County— | Comp. | Prod. | Abd. | Gas |
|---|---|---|---|---|
| Comanche | 1 | 0 | 1 | 0 |
| Crockett | 1 | 0 | 1 | 0 |
| Garza | 1 | 4 | 0 | 0 |
| Glasscock | 1 | 0 | 1 | 0 |
| Howard | 4 | 328 | 1 | 0 |
| Loving | 1 | 23 | 0 | 0 |
| Pecos | 2 | 124 | 0 | 0 |
| Reagan | 1 | 2,771 | 0 | 0 |
| Reeves | 1 | 0 | 1 | 0 |
| Upton | 1 | 100 | 0 | 0 |
| Ward | 18 | 3,414 | 3 | 0 |
| Winkler | 2 | 127 | 1 | 0 |
| Total April | 34 | 6,891 | 9 | 0 |
| Total March | 18 | 1,116 | 5 | 0 |
| Difference | 16 | 5,775 | 4 | 0 |

**Summary of Rigs and Wells Drilling**

| County— | Rigs | S.D. | Drlg. | Ttl. |
|---|---|---|---|---|
| Brewster | 0 | 0 | 1 | 1 |
| Concho | 0 | 1 | 0 | 1 |
| Crockett | 0 | 3 | 1 | 4 |
| Ector | 2 | 1 | 3 | 6 |
| Fisher | 1 | 0 | 2 | 3 |
| Garza | 0 | 1 | 0 | 1 |
| Glasscock | 0 | 0 | 3 | 3 |
| Howard | 3 | 1 | 9 | 13 |
| Irion | 0 | 2 | 1 | 3 |
| Jones | 4 | 4 | 1 | 9 |
| Loving | 4 | 1 | 4 | 9 |
| Pecos | 2 | 5 | 5 | 12 |
| Presidio | 0 | 1 | 0 | 1 |
| Reagan | 1 | 1 | 6 | 8 |
| Reeves | 0 | 1 | 1 | 2 |
| Runnels | 3 | 0 | 0 | 3 |
| Schleicher | 0 | 1 | 1 | 2 |
| Scurry | 0 | 3 | 2 | 5 |
| Taylor | 0 | 2 | 0 | 2 |
| Terrell | 0 | 2 | 0 | 2 |
| Ward | 2 | 7 | 11 | 20 |
| Winkler | 1 | 1 | 4 | 6 |
| Total April | 22 | 38 | 55 | 116 |
| Total March | 16 | 46 | 45 | 107 |
| Difference | 7 | 8 | 10 | 9 |

WELLS COMPLETED

COMANCHE COUNTY

Dave Duncan No. 1 Cox ..... abd

Wells completed ..... 1
Abandoned ..... 1

CROCKETT COUNTY

Northrup et al No. 1 Ingham ..... abd

Wells completed ..... 1
Abandoned ..... 1

GARZA COUNTY

M. L. Richards No. 1 W. E. Connell & Sons ..... 4

Wells completed ..... 1
Production ..... 4

GLASSCOCK COUNTY

Noel T. Lawson et al No. 2 M. M. Edwards ..... abd

Wells completed ..... 1
Abandoned ..... 1

HOWARD COUNTY

Plymouth Oil Co. No. 7 Kloh et al ..... 305
Southern Oil Corp. No. 1 W. P. Williams abd
P. H. E. Oil Co. No. 1 Dodge ..... 95
Merrick & Lamb No. 6 Chalk ..... 28

Wells completed ..... 4
Production ..... 328
Abandoned ..... 1

LOVING COUNTY

D. D. Thomas et al No. 1 Jim Wheat.. 23

Wells completed ..... 1
Production ..... 23

PECOS COUNTY

California Oil Co. No. 2 Tippett ..... 52
J. K. Kimberlin No. 1 Eaton ..... 72

Wells completed ..... 2
Production ..... 124

REAGAN COUNTY

Continental Oil Co. No. 6-B University .2777

Wells completed ..... 1
Production ..... 2777

REEVES COUNTY

J. E. Cunningham et al No. 1 Wm. Wright ..... abd

Wells completed ..... 1
Abandoned ..... 1

UPTON COUNTY

Gulf Prod. Co. No. 102 McElroy ..... 100

Wells completed ..... 1
Production ..... 100

WARD COUNTY

Abell Bros. No. 2 Sloan ..... 40
Atlantic and Penn Oil Co. No. 3 Bennett 500
Sturm-Simms Oil Co. No. 2 Jones (recompleted) ..... 125
Eppenauer Drlg. Co. No. 1 T. H. Purcell 10
Buck Sturm and Simms Oil Co. No. 2 R. H. Gill ..... 105
Buck Sturm et al No. 4 R. H. Gill .... 252
Rowan & Nichols No. 1 Street ..... abd
Renaud & Prettyman et al No. 1-B University ..... abd
Buck Sturm and Simms Oil Co. No. 2 R. H. Gill ..... 125
Atlantic Oil & Prod. Co. No. 1 Johnson 750
Atlantic Oil & Prod. Co. No. 2 Johnson 650
Gulf Prod. Co. No. 29 O'Brien ..... 250
Gulf Prod. Co. No. 26 O'Brien ..... 160
Kugle et al No. 1 Keasler ..... abd
Maxwell No. 1 Smith ..... 45
Sturm-Simms Oil Co. No. 4 Jones ..... 352
Sturm-Simms Oil Co. No. 3 Jones ..... 105
Texas Pacific C. & O. Co. No. 7 James.. 45

Wells completed ..... 13
Production ..... 3414
Abandoned ..... 2

WINKLER COUNTY

Richardson et al No. 1-C Scarborough.. abd
Sid Richardson et al No. 1 W. F. Scarborough (recompleted) ..... 127

Wells completed ..... 2
Production ..... 127
Abandoned ..... 1

## Southwest Texas Fields

**Summary of Field Operations**

| | Comp. | Prod. | Dry Gas | Rigs | Drlg. | Ttl. |
|---|---|---|---|---|---|---|
| Hilbig | 5 | 1,920 | 4 | 0 | 0 | 1 | 1 |
| Riddle | 2 | 0 | 2 | 0 | 0 | 0 | 0 |
| Tuleta | 2 | 40 | 1 | 0 | 0 | 1 | 1 |
| Eckert | 3 | 25 | 1 | 0 | 0 | 0 | 0 |
| S. Gov. Wells. | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| Sarnosa | 3 | 250 | 0 | 1 | 3 | 0 | 4 |
| N. Gov. Wells. | 15 | 6,006 | 4 | 1 | 1 | 5 | 6 |
| Saxet | 3 | 1,075 | 0 | 1 | 1 | 7 | 8 |
| Rio Grande | 2 | 45 | 1 | 0 | 0 | 0 | 0 |
| Los Olmos | 8 | 55 | 4 | 1 | 0 | 5 | 6 |
| Moca | 1 | 0 | 0 | 1 | 0 | 1 | 1 |
| Laurel | 5 | 690 | 2 | 0 | 1 | 6 | 7 |
| Escoba | 2 | 135 | 0 | 0 | 0 | 2 | 2 |
| Miscellaneous | 33 | 350 | 29 | 2 | 14 | 118 | 132 |
| Total Apr. | 85 | 10,591 | 49 | 7 | 20 | 146 | 166 |
| Total Mar. | 86 | 6,837 | 53 | 3 | 34 | 152 | 187 |
| Difference | 1 | 3,754 | 4 | 4 | 14 | 7 | 21 |

WELLS COMPLETED

HILBOG POOL—BASTROP COUNTY

Wolfensbarger, Humble Oil & Ref. Co. 1 abd
Goertz, Humble Oil & Ref. Co. 1 ..... abd
Osborne, Humble Oil & Ref. Co. 1 ..... abd
Wilhelm, Humble Oil & Ref. Co. 1 ....1020
Wolfensbarger, Humble Oil & Ref. Co. 2 abd

RIDDLE POOL—BASTROP COUNTY

Riddle, Ogden & Reed 2 ..... abd
Riddle, Eastland Oil Co. 1 ..... abd

TULETA POOL—BEXAR COUNTY

Taylor, Axtec Oil & Royalty Co. 1 .... abd
Taylor, Astec Oil & Royalty Co. 2 .... 40

ECKERT POOL—BEXAR COUNTY

Brehm, F. H. Eckert 6 ..... 15
Halbadier, C. W. Richards 6 ..... 10
Halbadier, C. W. Richards 3 ..... abd

SOUTH GOV. WELLS POOL—DUVAL COUNTY

White, Humble Oil & Ref. Co. 11 ..... abd

SARNOSA FIELD—DUVAL COUNTY

Duval Ranch Co., The Texas Company B-1 ..... gas
Ruiz, Magnolia Pet. Co. 3 ..... 100
Hernandez, Atravasada Oil Co. 1 ..... 150

NORTH GOV. WELLS POOL—DUVAL COUNTY

Wendt, H. H. Coffield 5 ..... abd
Lundvall, Highland Oil Co. 7 ..... abd
Lundvall, Highland Oil Co. 8 ..... abd
Hahl, Reynosa Oil Co. 6 .....1080
Wendt, The Texas Company 4 ..... 864
Hahl, Navarro Oil Co. 5 ..... 600
Smith, W. T. Daniels 1 ..... 96
White, Magnolia Pet. Co. 4 ..... gas
Hahl-Weinderkehr, Magnolia Pet. Co. 2.. 15
Heller, San Diego Oil Co. 2 .....Loc. abd
Hahl, Humble Oil & Ref. Co. 4 .....1091
Wendt, Southwest Drlg. Co. 8 .....1200
Johnson, The Texas Co. 7 ..... 100
Hahl, Navarro Oil Co. 4 ..... 480
Hahl, Reynosa Oil Co. 5 ..... 480

SAXET POOL—NUECES COUNTY

McGregor, Houston Oil Co. 3 .....1000
Smith, Holliday et al 2 ..... gas
Smith, Holliday et al 1 ..... 75

RIO GRANDE POOL—STARR COUNTY

Goodrich, Sioux Oil Co. 4 ..... 45
Ida Davis, Ed Glaggett 1 ..... abd

LOS OLMOS POOL—STARR COUNTY

Kelsey Bass, Columbia Royalty Co. 2 .. gas
Kelsey Bass, Los Almos O. & G. Co. 54 20
Kelsey Bass, Los Olmos O. & G. Co. 55.. 30
Seabury, Floyd-Doyno-Tolands 1 ..... abd
Kelsey Bass, Goodwin & Yantis 1 ..... abd

Seabury, Goodwin & Yantis 1 ..... abd
Keisey Bass, Columbia Royalty Co. 1 .. 5
Keisey Bass, R. A. Mitchell 1 ..... abd

MOCA POOL—WEBB COUNTY
Duval County Ranch Co., Moca Oil Co. 3 gas

LAUREL POOL—WEBB COUNTY
Laurel, South Texas Oil Co. 14 ..... 50
Garcia-Villareal, Wise & Jackson 1 .... 240
Garcia-Villareal, Reward Oil Co. 1 ..loc. abd
Garcia-Villareal, Montex Oil Co. 1 ..... abd
Laurel, South Texas Oil Co. 15 ..... 400

ESCOBAS POOL—ZAPATA COUNTY
Measles, The Texas Co. 20 .. ..... 75
Measles, The Texas Co. 25 ..... 60

Wells completed ..... 52
Production ..... ....10,241
Tests abandoned .. ..... 20
Gas production .....59,500,000

**Miscellaneous Counties**

BASTROP COUNTY
Buckner, C. C. Shumway et al 1 ..... abd
Riddle, Marts & Beavens 1 ..... 250

BEXAR COUNTY
Dullnig, H. G. Venable 2 .. .....loc. abd
Eckert, Sun Rise Oil Co. 1 .. ..... abd
Bilhartz, Motes-Campbell 2 .....loc. abd
Bilhartz, Motes-Campbell 1 .. ....loc. abd
Brotze, J. Morgan Russell 1 ..... abd

CALDWELL COUNTY
Robertson, Fred Adams 1 ..... abd

DUVAL COUNTY
Bain, Ed Leach et al 1 ..... abd
Duval County Ranch Co., S.R.C. Oil Co. 1 ..... loc. abd
Duval Co. Ranch Co., Wm. B. Stewart 2 gas
Welder-Woods, Newton et al 1 ..... abd
Peters, Shasta Oil et al 1-B .. ..... gas
Duval Co. Ranch Co., Wm. B. Stewart 1 abd

JIM WELLS COUNTY
Seeligson, Magnolia Pet. Co. 2 ... ..... 100

KARNES COUNTY
Stewart, The Texas Co. 1 ..... abd
Gilbert, W. R. Campbell 1 ..... abd

LIVE OAK COUNTY
Drummond, R. P. Whitefield 1 ... ... abd
Brown, Homer T. Lamb 1 ..... abd
Border Nat. Bank, Duval Oil Corp. 1 .. abd

McMULLEN COUNTY
La Chuse, S.R.C. Oil Co. 1 ..... abd
Shiner, C. C. Shumway 2 ..... abd
Booth, Greenwood & Calvert 1 ..... abd

STARR COUNTY
Madrigal, D. A. Miller 1 ..... abd
Wood, Adams & Modest 1 .....loc. abd
Ramos, Travelers Oil Co. 1 .....loc. abd
Starr Co. Cattle Co., Percy Brenton 1 .....loc. abd
Seabury et al, George Stobaugh 1 ..... abd
Gonzales, E. H. Stickney 2 .....loc. abd.
Dawson, J. W. Seward 1 ..... loc. abd

ZAPATA COUNTY
Trevino, P. H. Neilson 1 ..... abd
Bruni, O. W. Killam 4 ..... abd
Bruni, O. W. Killam 3 ..... abd

Wells completed .. ..... 33
Production ..... 350
Gas production .....20,000,000
Tests abandoned ..... 29

## North Central Texas Fields

**Summary of Wells Completed**

| County— | Comp. | Prod. | Abd. | Gas |
|---|---|---|---|---|
| Archer | 23 | 1,204 | 9 | 0 |
| Brown | 4 | 26 | 2 | 0 |
| Callahan | 4 | 0 | 4 | 0 |
| Coleman | 3 | 90 | 1 | 0 |
| Eastland | 3 | 165 | 0 | 1 |
| Jack | 7 | 41 | 5 | 0 |
| Palo Pinto | 3 | 0 | 2 | 1 |
| Shackelford | 11 | 230 | 8 | 0 |
| Wichita | 6 | 309 | 3 | 0 |
| Wilbarger | 3 | 0 | 3 | 0 |
| Young | 24 | 2,295 | 24 | 0 |
| Total April | 91 | 4,354 | 61 | 2 |
| Total March | 78 | 572 | 54 | 5 |
| Difference | 13 | 3,782 | 7 | 3 |

**Summary of Rigs and Wells Drilling**

| County— | Rigs | S.D. | Dig. | Ttl. |
|---|---|---|---|---|
| Archer | 7 | 5 | 8 | 20 |
| Brown | 1 | 4 | 1 | 6 |
| Callahan | 3 | 2 | 5 | 10 |
| Clay | 0 | 2 | 0 | 2 |
| Coleman | 3 | 1 | 4 | 8 |
| Cooke | 1 | 3 | 0 | 4 |
| Eastland | 1 | 4 | 3 | 8 |
| Erath | 0 | 1 | 1 | 2 |
| Foard | 0 | 0 | 1 | 1 |
| Grayson | 0 | 4 | 0 | 4 |
| Jack | 0 | 4 | 3 | 7 |
| Johnson | 0 | 3 | 0 | 3 |
| Montague | 0 | 1 | 1 | 2 |
| Palo Pinto | 1 | 4 | 6 | 11 |
| Parker | 0 | 3 | 0 | 3 |
| Shackelford | 2 | 1 | 5 | 8 |
| Stephens | 1 | 1 | 1 | 3 |
| Tarrant | 1 | 1 | 0 | 2 |
| Throckmorton | 1 | 3 | 0 | 4 |
| Wichita | 3 | 1 | 3 | 7 |
| Wilbarger | 1 | 0 | 3 | 4 |
| Wise | 0 | 1 | 1 | 2 |
| Young | 4 | 4 | 17 | 25 |
| Total April | 30 | 53 | 63 | 146 |
| Total March | 39 | 56 | 75 | 170 |
| Difference | 9 | 3 | 12 | 24 |

WELLS COMPLETED

ARCHER COUNTY

Charles L. Abercrombie's No. 1 Abercrombie .. ..... 6
M. M. Bradley's No. 2 Ben W. Carvey.. abd
Fresno Oil Co.'s No. 31 Prideaux ..... abd
Fresno Oil Co.'s No. 4 Prideaux ..... 10
Shappell Oil Co.'s No. 3 Portwood ..... 35
Shappell Oil Co.'s No. 4 Portwood ..... abd
Hazel B. Sparks' No. 1-A Matlock ..... 705
Earl Stilley's No. 1 Matlock ..... abd
The Texas Co.'s No. 4 Morrison ..... abd
White and Duncan's No. 3 Webb ..... 93
D. L. Wolf's No. 3 Anderson ..... abd
Fain & McGaha's No. 4 E. R. Fain .... 25
The Texas Co.'s No. 1 Turbeville ..... abd
C. W. Boler's No. 1 Portwood .. ..... abd
Burns et al's No. 2 York ..... 15
Coffey Gerold's No. 1 Barrett ..... abd
W. B. Hamilton's No. 1 Abercrombie .. 10
Helena Oil & Gas Co.'s No. 2 Ray ..... 100
King & Krahenbuhl's No. 1 Ikard .... 41
Jesse Lincoln's No. 2 Ray ..... 36
Stafford and Homer's No. 1 Longley ... 8
The Texas Co.'s No. 3 Morrison ..... 100
F. L. Wolf's No. 1 Andrews ..... 20

Wells completed .. ..... ..... 23
Initial production ..... ....1204
Abandoned .. ..... ..... 9

BROWN COUNTY
S. E. Herring's No. 1 McDaniels ..... abd
Dodgens' No. 1 Mitchell ..... abd
Tex Cal Oil Co.'s No. 6-B Morten ..... 5
Green and Ice's No. 3 Hamp Byler .... 15

Wells completed .... ..... 4
Initial production ... ..... 20
Abandoned ..... ..... 2

CALLAHAN COUNTY
Henry House's No. 4-A Finley ..... abd
Kamon and Thorley's No. 1 Long ..... abd
Sample's No. 2 Finley ..... abd
Lunsford's No. 1 Hatchett ..... abd

Wells completed ..... ..... 4
Abandoned ..... ..... 4

COLEMAN COUNTY
Arcadia Ref. Co.'s No. 6 Gohlson .... . 50
Anderson-Taylor's No. 1 Stewardson.... 40
Schaffer's No. 4 Watson ..... ..... abd

Wells completed ... ..... 3
Initial production ..... ..... 99
Abandoned ..... ..... 1

EASTLAND COUNTY
Conway Bros.' No. 1 Rooch ..... . gas
Texas Pacific Coal & Oil Co.'s No. 12 fee 65
Texas Pacific Coal & Oil Co.'s No. 11 fee 100

Wells completed ..... ..... 3
Initial production ..... ..... 165
Gas ..... ..... 1

JACK COUNTY
Root Drilling Co.'s No. 2 Coleman-Leach abd
William Wallace's No. 1 Moore ..... abd
Brazos River Gas Co.'s No. 1 J. M. Bex 40
Harper and Cohen's No. 1 Borten ..... abd
T. Minnick et al's No. 1 Bloodworth ... 1
Root Drilling Co.'s No. 1 J. L. King ... abd
William Wallace's No. 1 Moore ..... abd

Wells completed ..... ..... 7
Initial production ..... ..... 41
Abandoned ..... ..... 5

PALO PINTO COUNTY
O. P. Coffman's No. 1 Effie Bluker .... gas
Milling et al's No. 1 Stokes ..... abd
Clay Bros. and Stokes Oil Corp.'s No. 1 Allen-Ritchie .. ..... abd

Wells completed ..... ..... 3
Gas ..... ..... 1
Abandoned ..... ..... 2

SHACKELFORD COUNTY
Douglas' No. 1 Hickman .. ..... abd
Freeman-Hampton Oil Co.'s No. 1 Morris Buie ..... abd
J. R. Hart's No. 3 Schkede ..... abd
Meredith & Goodloe's No. 2 Hickman.. abd
Roeser & Pendleton's No. 2 Morris Buie 100
Bagnall's No. 1 Davis ..... abd
Dickey Bros.' No. 1 Moberly ..... abd
Jupeter Oil Co.'s No. 1 Haterces ..... abd
Roeser & Pendleton's No. 3-201 Morris Buie ..... abd
Union Drilling Co.'s No. 1 Carter ..... 48
Wittiken's No. 1 Reynolds ..... 82

Wells completed ..... ..... 11
Initial production ..... ..... 230
Abandoned .... ..... ..... 8

WICHITA COUNTY
George Proctor's No. 1 R. O. Harvey ... abd
Kimble & Bostic's No. 5 Haines ..... 4
Morris & Dunn's No. 7 Sheldon-Woodruff abd
R. P. Dareon's No. 2 Musgrave ..... abd
Joe Howell's No. 1 E. E. Goetze ..... 25
Magnolia Pet. Co.'s No. 6 S. E. Honaker 280

Wells completed ..... ..... 6
Initial production ..... ..... 309
Abandoned ..... ..... 3

WILBARGER COUNTY
King Royalty Co.'s No. 1 W. W. Wright abd
John O'Neil's No. 7 Castleberry ..... abd
The Texas Co.'s No. 413 Waggoner ..... abd

Wells completed ..... ..... 3
Abandoned ..... ..... 3

YOUNG COUNTY
Fitzwater's No. 1 Cunningham ..... abd
Fresno Oil Co.'s No. 1 Prideaux ..... 14
Fresno Oil Co.'s No. 2 Prideaux ..... abd
Hawkins & Gilmore's No. 2 Garrett .. abd
Charles J. Kidner's No. 2 Logan ..... abd
Schroll & Andree's No. 1 Morris ..... abd
Worth Oil Co.'s No. 2 C. Garrett .. 8
Mel Armstrong et al's No. 1 K. Greathouse ..... abd
Christie Bros.' No. 1 State Lands ..... abd
Connor & Son's No. 2 Graham ..... 90
Continental Oil Co.'s No. 1 Baptist Church ..... 30
John Wilson's No. 1 Bullock ..... abd
Floyd Ard, Jr.'s No. 2 Belknap ..... 50
Floyd Ard, Jr.'s No. 3 Belknap ..... 300
Fain & McGaha's No. 1 Stewart ..... abd
Fitzgerald's No. 1 J. Marshall ..... 891
Helena Oil & Gas Co.'s No. 1 Leon Slaughter ..... abd
Heydrick et al's No. 1 Jeffery ..... 892
C. J. Kleiner's No. 1 Ledbetter ..... abd
Panhandle Ref. Co.'s No. 1 Marshall .. abd
Simmon & Bonner's No. 1 Loftin ..... abd
Wheeler & Brashear's No. 1 Lowe ..... abd
Wooten & Reed's No. 1 Porter ..... abd
Worth Oil Co.'s No. 7 Garrett ..... 20

Wells completed ..... ..... 24
Initial production ..... ....2295
Abandoned ..... ..... 24

## Gulf Coast Fields

**Summary of Field Operations**

TEXAS

| Field— | Comp. | Prod. | Abd. | Gas | Rgs. | Dig. | Ttl. |
|---|---|---|---|---|---|---|---|
| Ariola | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barbers Hill | 5 | 4,033 | 1 | 0 | 1 | 7 | 8 |
| Batson | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Big Creek | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Buckeye | 0 | 0 | 0 | 0 | 1 | 3 | 4 |
| Clay Creek | 1 | 50 | 0 | 0 | 0 | 0 | 0 |
| Conroe | 66 | 114,952 | 1 | 1 | 5 | 54 | 59 |
| Damon Mnd. | 1 | 17 | 0 | 0 | 0 | 1 | 1 |
| Esperson | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Goose Creek | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Hankamer | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| High Island | 0 | 0 | 0 | 0 | 0 | 5 | 5 |
| Hockley | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Hull | 3 | 3,700 | 1 | 0 | 0 | 4 | 4 |
| Keeran | 1 | 580 | 0 | 0 | 0 | 0 | 0 |
| Livingston | 1 | 0 | 1 | 0 | 0 | 2 | 2 |
| Lost Lake | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| Manvel | 1 | 1,000 | 0 | 0 | 1 | 2 | 3 |
| McFaddin | 2 | 100 | 1 | 0 | 0 | 1 | 1 |
| Mykawa | 1 | 100 | 0 | 0 | 0 | 0 | 0 |
| Orange | 1 | 5 | 0 | 0 | 0 | 1 | 1 |
| Orchard | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Pierce Jctn. | 1 | 0 | 1 | 0 | 0 | 2 | 2 |
| Port Neches | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Rabbs Ridge | 16 | 18,855 | 0 | 0 | 1 | 5 | 6 |
| Raccoon Bend | 1 | 360 | 0 | 0 | 0 | 1 | 1 |
| Refugio | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Saratoga | 2 | 105 | 0 | 0 | 1 | 1 | 2 |
| Spurger | 2 | 0 | 2 | 0 | 0 | 1 | 1 |
| Sugarland | 1 | 50 | 0 | 0 | 0 | 0 | 0 |
| W. Columbia | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Miscellaneous | 6 | 0 | 6 | 0 | 3 | 34 | 37 |
| Ttl. Apr. | 114 | 143,962 | 16 | 1 | 13 | 137 | 150 |
| Ttl. Mar. | 154 | 186,851 | 39 | 1 | 27 | 146 | 173 |
| Difference | 40 | 42,889 | 23 | 0 | 14 | 9 | 23 |

LOUISIANA

| Field— | Comp. | Prod. | Abd. | Gas | Rgs. | Dig. | Ttl. |
|---|---|---|---|---|---|---|---|
| Cameron Meadows | 1 | 0 | 1 | 0 | 0 | 1 | 1 |
| Choctaw | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Darrow | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Dog Lake | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Gueydan | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Hackberry, E. | 0 | 0 | 0 | 0 | 0 | 5 | 5 |
| Iowa | 2 | 1,025 | 0 | 0 | 0 | 2 | 2 |
| Jennings | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Lake Barre | 1 | 1,765 | 0 | 0 | 0 | 2 | 2 |
| Lake Pelto | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| Leesville | 1 | 1,600 | 0 | 0 | 0 | 1 | 1 |
| Lockport | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Port Barre | 2 | 1,800 | 0 | 0 | 1 | 1 | 2 |
| Sorrento | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Starks | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Sulphur | 2 | 1,000 | 1 | 0 | 1 | 2 | 3 |
| Sweet Lake | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Vinton | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Miscellaneous | 2 | 0 | 2 | 0 | 4 | 7 | 11 |
| Total April | 12 | 7,190 | 5 | 0 | 7 | 33 | 40 |
| Total Mar. | 23 | 5,060 | 15 | 0 | 7 | 28 | 35 |
| Difference | 11 | 2,130 | 10 | 0 | 0 | 5 | 5 |
| Total Gulf Coast | 126 | 151,152 | 21 | 1 | 20 | 170 | 190 |
| Total Mar. | 177 | 191,911 | 54 | 1 | 34 | 174 | 208 |
| Difference | 51 | 40,759 | 33 | 0 | 14 | 4 | 18 |

**Texas Coast**

WELLS COMPLETED

BARBERS HILL—CHAMBERS COUNTY
"B" Gulf fee, Mills Bennett Prod. Co. 1-A ..... abd
Gulf fee, Mills Bennett Prod. Co. 2-C...1950
Kirby, Humble Oil & Ref. Co. 2 ..... 700
Wilburn, Sinclair-Prairie Oil Co. 14 .... 898
Chambers County, Yount Lee Oil Co. 21 540

Wells completed ..... ..... 5
Production .. ..... .4088
Abandoned .. ..... 1

CLAY CREEK—WASHINGTON COUNTY
Clay, Sun Oil Co. 7 ..... ..... 50

CONROE—MONTGOMERY COUNTY
Keystone Mills, Alpha Oil Co. 3 .....1615
Krohn, Alpha Oil Co. 3-A ..... .2160
South Tex. Dev. Co., Alpha Oil Co. 2-C.1272
South Tex. Dev. Co., Amerada Pet. Corp. 4 ..... ....2300
Keystone Mills, A.&P. Prod. Co. 1 .....2640
South Tex. Dev. Co., Bishop Oil Co. 1..2040
Keystone Mills, Gulf Coast Drlg. & Prod. Co. 7 ..... ....2280
Keystone Mills, Gulf Coast Drlg. & Prod. Co. 2-B ..... ....2210
Massey, Harrison & Abercrombie 2 ..... 360
Ben Wiggins, Harrison & Abercrombie 2 960
Walker, Heep Oil Co. 1 ..... ... 950
Cartwright, Houston Oil Co.-Tide Water Co. 4 ..... ..... 480
Moore, Houston Oil Co.-Tide Water Oil Co. 1 ..... ..... 2110
Alenius-Chisolm, Humble Oil & Ref. Co. 1 ..... .2809
Cartwright, Humble Oil & Ref. Co. 2-B.2400
Dobbins, Humble Oil & Ref. Co. 7 ..... 2110
B. E. Jones, Humble Oil & Ref. Co. 2 ..2475
B. E. Jones, Humble Oil & Ref. Co. 3 ..1725
Madeley, Humble Oil & Ref. Co. 30 ....1895
Madeley, Humble Oil & Ref. Co. 33 ....1725
Moore, Humble Oil & Ref. Co. 24 .....1700
Moore, Humble Oil & Ref. Co. 25 .....1500
Moore, Humble Oil & Ref. Co. 30 ....2160
Moore, Humble Oil & Ref. Co. 33 .....1225
Plaefflin, Humble Oil & Ref. Co. 4 ....1895
L. B. Rooker, Humble Oil & Ref. Co. 2 1725
L. B. Rooker, Humble Oil & Ref. Co. 5 1725
L. B. Rooker, Humble Oil & Ref. Co.. 6.1800
South Tex. Dev. Co., Humble Oil & Ref. Co. 32 ..... ....1895
South Tex. Dev. Co., Humble Oil & Ref. Co. 33 ..... ....2400
South Tex. Dev. Co., Humble Oil & Ref. Co. 45 ..... ....1895
R. Wiggins, Humble Oil & Ref. Co. 1 ....2135
Wiggins & Athey, Humble Oil & Ref. Co. 2 ..... ....2190
Young, Humble Oil & Ref. Co. 1 ..... 2190
Fannie Hooper, W. M. Massie 2 ..... 2400
Keystone Mills, McAlbert Oil Co. 2 .....2940
Meyers, Navarro Oil Co. and Standard Oil Co. of Kansas 1 ..... 768
South Tex. Dev. Co., Neuhaus & Horn 1.1760
South Tex. Dev. Co., Neversuch Oil Co. 3 ..... ....1800
Griffin, Republic Prod. Co. 1 ..... ....1200
Dunn, Showers & Moncrief 3-B ..... gas
South Tex. Dev. Co., Southern Liberty Oil Co. 1 ..... ....1340
South Tex. Dev. Co., Steinberger, Brown & Wheeler 2 ..... ....1560
Etheridge, Strake Pet., Inc., 1 ..... ....2160
Schaeffer, Strake Pet., Inc., 1 ..... ....2160
South Tex. Dev. Co., Sun Oil Co. 1 ..... 200
South Tex. Dev. Co., Sun Oil Co. 2 .... 64
Stewart, Sun Oil Co. 2 ..... ....1200
Stewart, Sun Oil Co. 3 ..... ....1200
Dudley, The Texas Co. 5 ..... ....1245
Moody, The Texas Co. 12 ..... ....1080
Moody, The Texas Co. 15 ..... ....2200
Moody, The Texas Co. 17 ..... ....1875
Moody, The Texas Co. 20 ..... ....1800
Moody, The Texas Co. 21 ..... abd
Rhodes, The Texas Co. 7 ..... ....1560
Rhodes, The Texas Co. 12 ..... ....1600
Dean, Tide Water Oil Co. 4 ..... ....2015
Dean, Tide Water Oil Co. 5 ..... ....2160
Eichlets, Tide Water Oil Co. 2 ..... ....3600
Lewis, Tide Water Oil Co. 17 ..... ....2640
Lewis, Tide Water Oil Co. 18 ..... ....2400
Lewis, Tide Water Oil Co. 19 ..... ....2088
Lewis, Tide Water Oil Co. 20 ..... ....2020
South Texas Dev. Co., Tide Water Oil Co. and Republic Prod. Co. 6 ..... ....1775
South Texas Dev. Co., Tide Water Oil Co. and Republic Prod. Co. 6 ..... ....2200

Wells completed ..... ..... 66
Production ..... ....114,952
Abandoned ..... ..... 1
Gas ..... ..... 1

DAMON MOUND—BRAZORIA COUNTY
Thomas, Sinclair Prairie Oil Co. 4 .... 17

HULL—LIBERTY COUNTY
Hannah, Hannah Oil Co. 1 ..... abd
Baldwin, Houston Prod. Co. 2 ..... ....3500
Knox-Nelson-Layton, Unique Oil Co. 1.. 200

Wells completed ..... ..... 3
Production ..... ..... ....3700
Abandoned ..... ..... 1

KEERAN—VICTORIA COUNTY
Keeran, Gulf Prod. Co. 3 ..... ..... 580

LIVINGSTON—POLK COUNTY
McDonald, Carlisle & Williams 1 ..... abd

LOST LAKE—CHAMBERS COUNTY
Mayes, Pure Oil Co. 17 ..... ..... abd

MANVEL—BRAZORIA COUNTY
Natali, The Texas Company 1 ..... ....1000

McFADDIN DISTRICT—REFUGIO AND VICTORIA COUNTIES
O'Connor, Humble Oil & Ref. Co. 4 ... 100
McFaddin, The Texas Company 6 ..... abd

Wells completed ..... ..... 2
Production ..... ..... 100
Abandoned ..... ..... 1

MYKAWA—HARRIS COUNTY
Minnetex, Crown Framer Oil Co. 4 .... 100

ORANGE—ORANGE COUNTY
Maguire, Birmingham Pet. Co. 1 ..... 5

PIERCE JUNCTION—HARRIS COUNTY
Settegast, Rio Bravo Oil Co. 26-A .... abd

RABBS RIDGE—FORT BEND COUNTY
Whitemore, Cullen & West 1 .....1150
Jack Gubbels, Gulf Prod. Co. 4 ..... ....1080
Mrs. Mary Gubbels, Humble Oil & Ref. Co. 6 ..... ....1295
Mrs. Mary Gubbels, Humble Oil & Ref. Co. 8 ..... ....1390
F. I. Booth, Humble Oil & Ref. Co. and Gulf Prod. Co. 13-A ..... ....1200
T. R. Booth, Humble Oil & Ref. Co. and Gulf Prod. Co. 6 ..... ....1415
George, Humble Oil & Ref. Co. and Gulf Prod. Co. 7 ..... ....1465
Lockwood, Humble Oil & Ref. Co. and Gulf Prod. Co. 8 ..... ....1295
Lockwood, Humble Oil & Ref. Co. and Gulf Prod. Co. 9 ..... ....1440
Lockwood, Humble Oil & Ref. Co. and Gulf Prod. Co. 10 ..... ....1200
Lockwood, Humble Oil & Ref. Co. and Gulf Prod. Co. 11 ..... ....1035
Lockwood, Humble Oil & Ref. Co. and Gulf Prod. Co. 12 ..... ....1245
Lockwood & Sharp, Humble Oil & Ref. Co. and Gulf Prod. Co. 13-A ..... 480
Lockwood & Sharp, Humble Oil & Ref. Co. and Gulf Prod. Co. 14-A .....1440
Lockwood & Sharp, Humble Oil & Ref. Co. and Gulf Prod. Co. 16-A .....1365
Lockwood & Sharp, Humble Oil & Ref. Co. and Gulf Prod. Co. 17-A ..... 360

Wells completed ..... ..... 16
Production ..... ....18,855
Abandoned or gas ..... ..... 0

RACCOON BEND—AUSTIN COUNTY
Diemar, Humble Oil & Ref. Co. 5 ..... 360

SARATOGA—HARDIN COUNTY
Jordit, Rio Bravo Oil Co. 94 ..... 45
Jordit, Rio Bravo Oil Co. 95 ..... 60

Wells completed ..... ..... 2
Production ..... ..... 105

SPURGER—TYLER COUNTY
Kirby (E-1016), Republic Prod. Co. 1 .. abd
Kirby (E-1017), Republic Prod. Co. 1 .. abd

Wells completed ..... ..... 2
Production ..... ..... 0
Abandoned ..... ..... 2

SUGARLAND—FORT BEND COUNTY

**Miscellaneous Texas**

AUSTIN COUNTY
J. C. Hacienda Sur., J. B. Lewis, Cranfill-Reynolds Co. 1 ..... abd

MONTGOMERY COUNTY
R. Rogers Sur., Swift, G. C. Steinberger 1 ..... abd

JASPER COUNTY
William Jones Sur., Cameron Lbr. Co., Smitherman, Neilson & Noble 1 ..... abd

POLK COUNTY
DeRumayor Sur., Roberts, Toner & Purdy 1 ..... abd

SAN JACINTO COUNTY
James W. Robertson Sur., Delta, Weaver et al 1 ..... abd

VICTORIA COUNTY
S.A.&M.G. Sur., Sec. 3, McCormic, Quintana Oil Co. 1 ..... abd

Wells completed ..... 6
Production ..... 0
Abandoned ..... 6

LOUISIANA COAST
CAMERON MEADOWS—CAMERON PARISH
Cameron Meadows, Magnolia Pet. Co. 3 abd
IOWA—CALCASIEU PARISH
Waite, Magnolia Pet. Co. 3 ..... 800
Heyd, Shell Pet. Corp. 3 ..... 225

Wells completed ..... 2
Production ..... 1025
LAKE BARRE—TERREBONNE PARISH
State-Lake Barre, The Texas Company 21 ..... 1765
LAKE PELTO—TERREBONNE PARISH
State-Lake Pelto, The Texas Company 3 abd
LEESVILE—LAFOURCHE PARISH
L.L.&E., The Texas Company 6 ..... 1600
PORT BARRE—ST. LANDRY PARISH
Wilson & Cochran, Gulf Ref. Co. 4 ....1400
Botney Bay, The Texas Company 13 .. 400

Wells completed ..... 2
Production ..... 1800
SULPHUR—CALCASIEU PARISH
Fee, Union Sulphur Co. 777 ..... abd
Fee, Union Sulphur Co. 778 ..... 1000

Wells completed ..... 2
Production ..... 1000
Abandoned ..... 1
Miscellaneous Louisiana
PLAQUEMINES PARISH
Garden Island, The Texas Company 7.. abd
ST. BERNARD PARISH
Sec. 127-14s-14e, Delecroix Farm, Stanley & Thompson 1 ..... abd

Wells completed ..... 2
Abandoned ..... 2

## Louisiana Fields

**Summary of Field Operations**

| | Comp. | Prod. | Dry | Gas* | Rgs. | Dig. | Ttl. |
|---|---|---|---|---|---|---|---|
| Allen Parish. | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| Avoyelles ... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Beauregard . | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Bienville .... | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Bossier ..... | 0 | 0 | 0 | 0 | 1 | 5 | 6 |
| Caddo ..... | 2 | 15 | 1 | 0 | 4 | 6 | 10 |
| Caldwell ... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Catahoula ... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Claiborne .... | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| DeSoto ..... | 1 | 0 | 1 | 0 | 4 | 14 | 18 |
| Grant ..... | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Jackson .... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Morehouse .. | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Natchitoches. | 0 | 0 | 0 | 0 | 1 | 4 | 5 |
| Ouachita .... | 0 | 0 | 0 | 0 | 1 | 3 | 4 |
| Rapides .... | 0 | 0 | 0 | 0 | 3 | 1 | 4 |
| Red River .. | 0 | 0 | 0 | 0 | 1 | 3 | 4 |
| Sabine ..... | 14 | 1,315 | 3 | 1 | 15 | 53 | 67 |
| Tensas ..... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Union ..... | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Vernon ..... | 1 | 0 | 1 | 0 | 0 | 1 | 1 |
| Webster .... | 0 | 0 | 0 | 0 | 2 | 2 | 4 |
| West Carroll. | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Winn ..... | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| Ttl. Apr. . | 20 | 1,330 | 8 | 1 | 36 | 107 | 143 |
| Ttl. Mar. . | 28 | 543 | 20 | 1 | 40 | 102 | 142 |
| Difference. | 8 | 787 | 12 | 0 | 6 | 5 | 1 |

*Gas production: Sabine 5,000,000 feet.

WELLS COMPLETED
ALLEN PARISH
34-4s-6w Long-Bell Lbr. Co., O'Brien Bros. 1 ..... dry
CADDO PARISH
29-19-16 Waskom, La. O. & G. Co. 1 .. dry
15-21-15 D. H. Raines, The Texas Co. 20 15
DE SOTO PARISH
23-13-12 Sample, Jerry Ryan et al 1.. abd
19-11-13 Sanders, Jack Whitson 1 .... dry
SABINE PARISH
20-8-13 Cranford, Evans Bros. 1 ..... 150
4-7-13 Garcia, Ab Jones 1 ..... dry
34-8-11 Dew, G. E. Jordan 1 ..... 35
35-8-12 Steinhorst, D. M. Lice 1 ..... 150
20-9-13 Frost Lbr. Industries, Joe Modisette 1 ..... 75
8-7-11 La. Long Leaf Lbr. Co., Pelican Nat. Gas 20 ..... 50
36-8-12 Blackman, Pugh-Hickman Drlg. Co. 4 ..... dry
36-8-12 Blackman, Pugh-Hickman Drlg. Co. 8 ..... 250
26-9-13 Bowman-Hicks Lbr. Co., Sandfield O. & G. Co. 1 ..... gas
18-7-11 Smith, Service Drlg. & Royalties Co. 2 ..... dry
4-7-11 Turner, Ben F. Smith 4 ..... 50
36-8-12 Middleton, H. R. Smith 1 ..... 250
10-7-11 Ponder, F. E. Stancil 1 ..... 5
17-7-10 O. B. Davis, State Prod. Co. 1-B ..... abd
25-8-12 Tatum, Zwolle Prod. Co. 1 .... 300

Wells completed ..... 14
Production ..... 1315
Gas ..... 1
Dry ..... 3
Gas production ..... 5,000,000
VERNON PARISH
33-3n-9w J. J. Willis, Gibson & Johnson 1 ..... dry
WINN PARISH
28-13- 3 Southern Advance Bag & Paper Co., P. V. T. Oil Co. 1 .. dry

EAST TEXAS BORDER

| | Comp. | Prod. | Dry | Gas | Rgs. | Dig. | Ttl. |
|---|---|---|---|---|---|---|---|
| Bowie ..... | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Cass ..... | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Harrison ... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Marion ..... | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Panola ..... | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Red River .. | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| Shelby ..... | 1 | 0 | 1 | 0 | 0 | 2 | 2 |
| Ttl. Apr. . | 1 | 0 | 1 | 0 | 1 | 17 | 18 |
| Ttl. Mar. . | 0 | 0 | 0 | 0 | 1 | 19 | 20 |
| Difference. | 1 | 0 | 1 | 0 | 0 | 2 | 2 |

WELLS COMPLETED
SHELBY COUNTY
J. Burleson Survey: Ellington, Prairie Creek Crude Co. 1 ..... dry

## Arkansas Fields

**Summary of Field Operations**

| | Comp. | Prod. | Dry | Gas | Rgs. | Dig. | Ttl. |
|---|---|---|---|---|---|---|---|
| Cleburne .... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Cleveland ... | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Columbia ... | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Desha ..... | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Hempstead . | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Jefferson .... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Lafayette ... | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Lincoln .... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Little River . | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Miller ..... | 2 | 0 | 2 | 0 | 3 | 13 | 16 |
| Nevada ..... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Ouachita ... | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Prairie ..... | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Sevier ..... | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Union ..... | 1 | 0 | 1 | 0 | 1 | 6 | 7 |
| Woodruff ... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Yell ..... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Ttl. Apr. . | 3 | 0 | 3 | 0 | 9 | 33 | 42 |
| Ttl. Mar. . | 1 | 45 | 0 | 0 | 15 | 28 | 43 |
| Difference. | 2 | 45 | 3 | 0 | 4 | 5 | 1 |

WELLS COMPLETED
MILLER COUNTY
29-16-26 Georgie Jones, Lee L. Foster 1 dry
32-15-26 Smith, Jenkins Bros. 2 ..... abd
32-15-26 Smith, Jenkins Bros. 3 ..... abd
32-15-26 Smith, Jenkins Bros. 4 ..... abd
31-17-26 Barker, Roy Kniveton 1 ..... dry
30-18-27 A. M. Gibson, Molar Oil Co. 1. abd
UNION COUNTY
1-18-16 J. F. Sample, F. C. Henderson 1 ..... dry

ALABAMA

**Summary of Field Operations**

| | Comp. | Prod. | Dry | Gas | Rgs. | Dig. | Ttl. |
|---|---|---|---|---|---|---|---|
| Baldwin ... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Cullman .... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Lamar ..... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Washington . | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Ttl. Apr. . | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Ttl. Mar. . | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Difference. | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

MISSISSIPPI

**Summary of Field Operations**

| | Comp. | Prod. | Dry | Gas | Rgs. | Dig. | Ttl. |
|---|---|---|---|---|---|---|---|
| Amite ..... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Bolivar ..... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Clarke ..... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Covington .. | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| George ..... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Hinds ..... | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Lamar ..... | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Monroe ..... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Newton ..... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Rankin ..... | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| Scott ..... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Sunflower ... | 2 | 0 | 2 | 0 | 0 | 0 | 0 |
| Webster .... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Winkinson .. | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Ttl. Apr. . | 3 | 0 | 3 | 0 | 3 | 15 | 18 |
| Ttl. Mar. . | 2 | 0 | 2 | 0 | 4 | 14 | 18 |
| Difference. | 1 | 0 | 1 | 0 | 1 | 1 | 0 |

WELLS COMPLETED
HINDS COUNTY
26- 6-1e Woodland Hills, Geo. P. Adkins et al 1 ..... abd
LAMAR COUNTY
18-2n-14 Bond, Stauffer & Kouri 1 ... dry
SUNFLOWER COUNTY
36-21-3w Adair, Miss. Oil & Dev. Co. 1. dry
21-22-4w Dockery, Miss. Oil & Dev. 1.. dry

## Rocky Mountain Area

WYOMING

**Summary of Field Operations**

| County— | Comp. | Prod. | Dry | Gas | Rgs. | Dig. | Ttl. |
|---|---|---|---|---|---|---|---|
| Big Horn ... | 0 | 0 | 0 | 0 | 1 | 5 | 6 |
| Carbon ..... | 0 | 0 | 0 | 0 | 2 | 3 | 5 |
| Converse .... | 0 | 0 | 0 | 0 | 0 | 5 | 5 |
| Crook ..... | 0 | 0 | 0 | 0 | 0 | 5 | 5 |
| Fremont .... | 0 | 0 | 0 | 0 | 0 | 5 | 5 |
| Hot Springs . | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Natrona .... | 0 | 0 | 0 | 0 | 1 | 9 | 10 |
| Park ..... | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| Platte ..... | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| Sweetwater . | 0 | 0 | 0 | 0 | 1 | 6 | 7 |
| Sublet ..... | 0 | 0 | 0 | 0 | 1 | 3 | 4 |
| Uinta ..... | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Weston ..... | 0 | 0 | 0 | 0 | 2 | 4 | 6 |
| Miscellaneous | 0 | 0 | 0 | 0 | 1 | 7 | 8 |
| Ttl. Apr. . | 2 | 0 | 1 | 1 | 9 | 57 | 66 |
| Ttl. Mar. . | 0 | 0 | 0 | 0 | 8 | 58 | 66 |
| Difference. | 2 | 0 | 1 | 1 | 1 | 1 | 0 |

WELLS COMPLETED
30-21-48 Diamond ranch, T. R. Oberman 1 ..... dry
31-58-99 Henderson Prod. Co. 10 ..... gas

Wells completed ..... 2
Gas ..... 1
Gas production ..... 15,000,000
Dry and abandoned ..... 1

UTAH

**Summary of Field Operations**

| | Comp. | Prod. | Dry | Gas | Rgs. | Dig. | Ttl. |
|---|---|---|---|---|---|---|---|
| Total April . | 0 | 0 | 0 | 0 | 0 | 15 | 15 |
| Total March. | 0 | 0 | 0 | 0 | 0 | 15 | 15 |
| Difference. | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

MONTANA

**Summary of Field Operations**

| County— | Comp. | Prod. | Dry | Gas | Rgs. | Dig. | Ttl. |
|---|---|---|---|---|---|---|---|
| Carbon ..... | 0 | 0 | 0 | 0 | 0 | 6 | 6 |
| Glacier ..... | 1 | 60 | 0 | 0 | 2 | 8 | 10 |
| Liberty ..... | 1 | 5 | 0 | 0 | 0 | 2 | 2 |
| Phillips ..... | 1 | 0 | 0 | 1 | 0 | 1 | 1 |
| Teton ..... | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Toole ..... | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Miscellaneous | 0 | 0 | 0 | 0 | 0 | 9 | 9 |
| Ttl. Apr. . | 3 | 65 | 0 | 1 | 2 | 33 | 35 |
| Ttl. Mar. . | 2 | 75 | 0 | 1 | 4 | 30 | 34 |
| Difference. | 1 | 10 | 0 | 0 | 2 | 3 | 1 |

WELLS COMPLETED
11-32-32 Survant, Phillips O. & G. Co. 1 gas
23-37-4e Mahoney, John Wild et al 1.. 5
25-34-6w Jackson, Santa Rita O. & G. 1 60

Wells completed ..... 3
Production ..... 65
Gas ..... 1
Gas production ..... 1,000,000

NEW MEXICO

**Summary of Field Operations**

| County— | Comp. | Prod. | Dry | Gas | Rgs. | Dig. | Ttl. |
|---|---|---|---|---|---|---|---|
| DeBaca ..... | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Dona Ana .. | 1 | 0 | 1 | 0 | 0 | 1 | 1 |
| Eddy ..... | 0 | 0 | 0 | 0 | 3 | 8 | 11 |
| Lea ..... | 6 | 9,775 | 1 | 0 | 0 | 9 | 9 |
| McKinley ... | 0 | 0 | 0 | 0 | 0 | 7 | 7 |
| San Juan .. | 1 | 5 | 0 | 0 | 0 | 11 | 11 |
| San Miguel . | 0 | 0 | 0 | 0 | 1 | 3 | 4 |
| Santa Fe ... | 1 | 0 | 1 | 0 | 0 | 2 | 2 |
| Valencia ... | 0 | 0 | 0 | 0 | 1 | 3 | 4 |
| Miscellaneous | 0 | 0 | 0 | 0 | 1 | 9 | 10 |
| Ttl. Apr. . | 9 | 9,780 | 3 | 0 | 6 | 55 | 61 |
| Ttl. Mar. . | 7 | 21,156 | 1 | 0 | 7 | 58 | 65 |
| Difference. | 2 | 11,376 | 2 | 0 | 1 | 3 | 4 |

WELLS COMPLETED
26-10-10 Kelsey, Clients Dev. Est. 1 .. dry
20-29-11 J. F. Cross 5 ..... 5
17-18-38 State, Skelly Oil Co. 1 ..... 2824
10-19-38 Thorpe, Stanolind O. & G. 26.. 130
25-18-37 State, Continental Oil 1-B-25.. 5216
34-20-34 Lynch, The Texas Co. 1-B .... dry
34-20-34 Lynch, The Texas Co. 2-A .... 205
8-21-36 State, Atlantic Oil Prod. 1-B..1400
26-23-5e Cox, Viking Oil & Dev. Co. 1.. abd

Wells completed ..... 9
Production ..... 9780
Dry and abandoned ..... 3

COLORADO

**Summary of Field Operations**

| County— | Comp. | Prod. | Dry | Gas | Rgs. | Dig. | Ttl. |
|---|---|---|---|---|---|---|---|
| Boulder ..... | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Elbert ..... | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Fremont .... | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Jackson .... | 0 | 0 | 0 | 0 | 0 | 5 | 5 |
| LaPlata .... | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| Larimer .... | 0 | 0 | 0 | 0 | 0 | 9 | 9 |
| Moffat ..... | 0 | 0 | 0 | 0 | 2 | 1 | 3 |
| Morgan ..... | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Rio Blanco . | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Routt ..... | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Weld ..... | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Misleclaneous | 0 | 0 | 0 | 0 | 1 | 20 | 21 |
| Ttl. Apr. . | 0 | 0 | 0 | 0 | 6 | 55 | 61 |
| Ttl. Mar. . | 9 | 0 | 8 | 1 | 6 | 57 | 63 |
| Difference. | 9 | 0 | 8 | 1 | 0 | 2 | 2 |

## Eastern Fields

**Summary of Completed Work**

| Field— | Comp. | Prod. | Dry | Gas |
|---|---|---|---|---|
| Bradford ..... | 25 | 90 | 0 | 0 |
| Allegany ..... | 5 | 16 | 0 | 0 |
| Venango-Clarion ..... | 4 | 3 | 0 | 1 |
| Butler-Armstrong .... | 1 | 1 | 0 | 0 |
| N.Y.-Penn'a Gas .... | 4 | 0 | 2 | 2 |
| Southeast Ohio .... | 4 | 61 | 1 | 1 |
| West Virginia ..... | 18 | 50 | 4 | 3 |
| Totals April ..... | 56 | 221 | 7 | 12 |
| Totals March ..... | 69 | 294 | 14 | 18 |
| Difference ..... | 13 | 73 | 7 | 6 |

**Summary of Work Under Way**

| Field— | Rigs | Dig. | Total |
|---|---|---|---|
| Bradford ..... | 1 | 21 | 22 |
| Allegany ..... | 2 | 4 | 6 |
| Venango-Clarion ..... | 0 | 4 | 4 |
| Butler-Armstrong .... | 1 | 5 | 6 |
| N.Y.-Penn'a, Gas ..... | 5 | 14 | 19 |
| S. W. Penn'a ..... | 3 | 4 | 7 |
| Southeast Ohio ..... | 3 | 24 | 27 |
| West Virginia ..... | 18 | 43 | 61 |
| Totals April ..... | 33 | 119 | 152 |
| Totals March ..... | 46 | 115 | 161 |
| Difference ..... | 13 | 4 | 9 |

WELLS COMPLETED
BRADFORD
Fee, Dallas Oil Co. 106..... 2
Ward, R. S. Falconer ..... 2
Farm 4148, South Penn (4 wells)..pressure
Farm 4054, South Penn (3 wells)..pressure
Farm 4119, South Penn ..... pressure
Franchot, Bradford Producing Co. Inc... 25
Fee, Bradford Producing Co. Inc. ... 30
Morris, Minard Run Oil Co..... 2
Morris, Minard Run Oil Co..... 2
Morris, Minard Run Oil Co.....pressure
Fee, Olean Petroleum Co. ..... 9
Farm 4294, South Penn ..... 1
Smedley, Towne-Melvin Oil Co. ..... 5
Moore, H. J. Walter Oil Co..... 2
Fee, Sloan and Zook ..... 7
Fee, Bradford Producing Co. Inc. pressure
Fee, Bradford Producing Co. Inc. pressure
Fee, Gradford Producing Co. Inc..... 3
Fee, T. P. Thompson Jr. ..... 2
Duke, Sloan and Zook Oil Co. 1 ..... 2

Completions ..... 35
Production ..... 90
Pressure ..... 11

ALLEGANY
Herrick, N.V.V. Franchot, trustee..... 7
Fee, Forest Oil Corpn. ..... 1
Fee, Olean Security Co. ..... 1
Hamlin, F. J. Eisert .. ..... pressure
Fee, D. E. Quinlan estate ..... 7

Completions ..... 5
Production ..... 16
VENANGO-CLARION
Fee, Fryburg Motor Co. 1 .. ..... gas
Clark, Robert and George Foggan 43.. 1
Clark, Robert and George Foggan 44 . 1
Staub, Surety Oil Co. 26..... 1

Completions ..... 4
Production ..... 3
Gas ..... 1
BUTLER-ARMSTRONG
Collins, Robinson and Collins 1..... 1

Completions ..... 1
Production ..... 1
N.Y.-PENN'A GAS
Woodruff, Keff-Kaufman Co. ..... gas
Waterman, Peterman et al ..... dry
Skuse, Peterman et al ..... dry
Parish, Great Northern Gas Co..... gas

Completions ..... 4
Dry ..... 2
Gas ..... 2
COMPLETIONS
Southwest Pennsylvania
NONE
COMPLETIONS
Southeast Ohio
COSHOCTON COUNTY
Crothers, Weiser Oil Co. 1 .... ..... 26
MONROE COUNTY
Johnson, Gold Crown O. & G. Co. 2..... gas
MEDINA COUNTY
Broadsword, Curtis & Eaken 8 ..... dry
MUSKINGUM COUNTY
Miller, Wittmer O. & G. Properties 1.. 35

Completions ..... 4
Production ..... 61
Dry ..... 1
Gas ..... 1
COMPLETIONS
West Virginia
BOONE COUNTY
Federal Coal Co., Pure Oil Co. 29..... gas
Cole & Crane, Pond Fork O. & G. Co. 13. gas
CALHOUN COUNTY
Miller, Morris & Cain 1 ..... gas
Yoke, W. T. and O. L. Yoke 1..... gas
Whipkey, Jarvis & Ayers 1 ..... gas
Shank, L. B. Carroll 1 ..... gas
Starkey, W. H. Bickel 2 ..... gas
GILMER COUNTY
Lydick, A. E. Ellis et al 1..... dry
RITCHIE COUNTY
Tingler, King Knob O. & G. Co. 1 ... 80
ROANE COUNTY
Guthrie, Reedy O. & G. Co. 2 ..... dry
Smith, Big Sandy O. & G. Co. 2 ..... dry
WETZEL COUNTY
Marshall, Browns Run Gas Co. 1 .... dry
WAYNE COUNTY
Vaughn, Burgess O. & G. Co. 1..... gas

Completions ..... 13
Production ..... 50
Dry ..... 4
Gas ..... 8

## Central Ohio Fields

**Summary of Field Operations**

| | Comp. | Prod. | Dry | Gas | Rigs | Drg. | Ttl. |
|---|---|---|---|---|---|---|---|
| Ashland .... | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Lorain ..... | 1 | 0 | 0 | 1 | 1 | 0 | 1 |
| Medina ..... | 1 | 0 | 1 | 0 | 1 | 2 | 3 |
| Knox ..... | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Summitt ... | 1 | 0 | 0 | 0 | 1 | 1 | 1 |
| Fairfield .. | 1 | 0 | 0 | 1 | 0 | 1 | 1 |
| Coshocton .. | 2 | 20 | 1 | 0 | 0 | 2 | 2 |
| Richland .... | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Licking .... | 2 | 20 | 0 | 1 | 0 | 1 | 1 |
| Muskingum.. | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Athens .... | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 4 |
| Tuscarawas.. | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Holmes .... | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Stark ..... | 6 | 0 | 0 | 6 | 9 | 16 | 25 |
| Belmont .... | 1 | 0 | 1 | 0 | 2 | 7 | 9 |
| Logan ..... | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| Guernsey .. | 1 | 0 | 0 | 1 | 0 | 2 | 2 |
| Crawford .... | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Gallia ..... | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Scioto .... | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Pike ..... | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Carroll .... | 0 | 0 | 0 | 0 | 0 | 5 | 5 |
| Columbiana.. | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Ttl. Apr. . | 17 | 50 | 3 | 12 | 17 | 56 | 73 |
| Ttl. Mar. . | 26 | 317 | 10 | 8 | 17 | 56 | 73 |
| Difference | 9 | 267 | 7 | 4 | 0 | 0 | 0 |

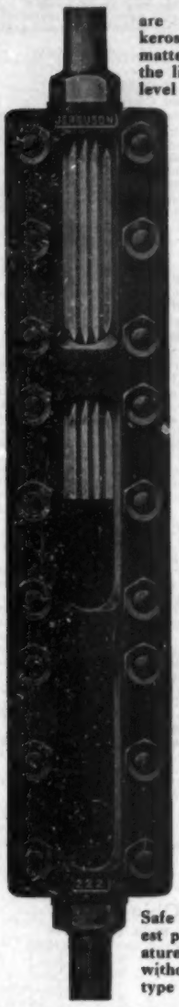
WELLS COMPLETED
LORAIN COUNTY
Ridgeville—Belle Smith, McMillan & Co. 1 ..... gas
MEDINA COUNTY
Chatham—Harrison Broadsword, Curtis & Eaken 8 ..... dry
SUMMITT COUNTY
Richfield—Hillside Country Club, Barnhart & Co. 1 ..... gas
FAIRFIELD COUNTY
Pleasants—F. G. Ruff, City Natural Gas Works 2 ..... gas
COSHOCTON COUNTY
Perry—Abe C. Crowthers, Wiser Oil 1 20
Pike—Ashcraft hrs., Ashcraft Bros. 1. dry

Wells completed ..... 2
Production ..... 20
Dry ..... 1
LICKING COUNTY
Perry—George Boyd, McClay Bros. 2 ... 30
Newton—J. L. Hall, G. E. Earley Co. 2 gas

Wells completed ..... 2
Production ..... 30
Gas ..... 1

JERGUSON

REFLEX GAGES



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The *Liquid* shows BLACK

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SOMERVILLE, MASS.

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The Oil and Gas Journal

Tulsa, Okla.

STARK COUNTY

Jackson—J. F. Geib, Ohio Fuel Gas 2-5,709 ..... gas
Ed J. Frank, East Ohio Gas 2 ..... gas
Lake Cable Co., Brendal Prod. Co. 10 gas
Plain—Stella Straussor, East Ohio Gas 1 ..... gas
Celestia Kolb, White & Co. 1 ..... gas
W. H. Double, Brendal Prod. Co. 1 .. gas

Wells completed ..... 6
Gas ..... 6

BELMONT COUNTY

Somerset—I. and O. R. Clift, M. J. Purdy & Co. 1 ..... dry

LOGAN COUNTY

Rush Creek—Ward Sweetland, Simms O. & G. 1 ..... gas

GUERNSEY COUNTY

Westland—A. Kerr, C. C. Wharton 2 .. gas

## Indiana Fields

**Summary of Field Operations**

| | Comp. | Prod. | Dry | Gas | Rgs. | Dlg. | Ttl. |
|---|---|---|---|---|---|---|---|
| Gibson | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| Pike | 1 | 0 | 1 | 0 | 1 | 4 | 5 |
| Sullivan | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Daviess | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Warrick | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Vigo | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Spencer | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Perry | 0 | 0 | 0 | 0 | 0 | 5 | 5 |
| Knox | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Harrison | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Hamilton | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Dearborn | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Greene | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Switzerland | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| St. Joe | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Rush | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| DeKalb | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Pulaski | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Elkhart | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Johnson | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Kosciusko | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Hancock | 1 | 5 | 0 | 0 | 0 | 0 | 0 |
| Stark | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Jasper | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Martin | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Huntington | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Vanderburg | 2 | 20 | 1 | 0 | 0 | 4 | 4 |
| Ttl. Apr. | 4 | 25 | 2 | 0 | 3 | 52 | 55 |
| Ttl. Mar. | 14 | 85 | 3 | 6 | 2 | 54 | 56 |
| Difference | 10 | 60 | 1 | 6 | 1 | 2 | 1 |

WELLS COMPLETED

PIKE COUNTY

Washington—Chas. R. Lucas, Harry N. Bell & Co. 2 ..... dry

HANCOCK COUNTY

Brandywine—Sarah Ross, J. Harve Snider 2 ..... 5

VANDERBURG COUNTY

Center—Geo. Hornby, Maxwell Pet. 3 . 20
Scott—Matt J. Schmitt, C. J. Weideman 1 ..... dry

Wells completed ..... 2
Production ..... 20
Dry ..... 1

## Illinois Fields

**Summary of Field Operations**

| | Comp. | Prod. | Dry | Gas | Rgs. | Dlg. | Ttl. |
|---|---|---|---|---|---|---|---|
| Clark | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Coles | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Crawford | 1 | 0 | 1 | 0 | 1 | 1 | 2 |
| Lawrence | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Boone | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Jefferson | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Jasper | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Clinton | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Bond | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Ttl. Apr. | 1 | 0 | 1 | 0 | 1 | 11 | 12 |
| Ttl. Mar. | 1 | 0 | 1 | 0 | 1 | 11 | 12 |
| Difference | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

WELLS COMPLETED

CRAWFORD COUNTY

Montgomery—H. R. and E. J. McClaflin, W. C. McBride, Inc. 1 ..... dry

LAWRENCE COUNTY

Dennison—M. McCrosky hrs., International O. & G. 6 ..... abd

## Lima Fields

**Summary of Field Operations**

| | Comp. | Prod. | Dry | Gas | Rigs | Drg. | Ttl. |
|---|---|---|---|---|---|---|---|
| Wood | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| Allen | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Auglaize | 1 | 5 | 0 | 0 | 0 | 2 | 2 |
| Mercer | 1 | 8 | 0 | 0 | 1 | 1 | 2 |
| Sandusky | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Lucas | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Ottawa | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Seneca | 3 | 1 | 0 | 2 | 0 | 2 | 2 |
| Wyandot | 2 | 75 | 0 | 1 | 3 | 3 | 6 |
| Marion | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Ttl. Apr. | 7 | 89 | 0 | 3 | 6 | 15 | 21 |
| Ttl. Mar. | 5 | 0 | 3 | 2 | 1 | 23 | 24 |
| Difference | 2 | 89 | 3 | 1 | 5 | 8 | 3 |

WELLS COMPLETED

WOOD COUNTY

Portage—Dave Gunder, J. P. Gunder & Co. 9, 10 ..... abd
Bloom—Gust Barts, Ohio Oil 4 ..... abd
Solar Ref. Co., Ohio Oil 2 ..... abd
Henry—Vincent H. Corns, Ohio Oil 29.. abd

Abandoned ..... 5

HANCOCK COUNTY

Allen—Ephraim Trout hrs., "A", Ohio Oil 2 ..... abd
S. R. Huntington, Ohio Oil 2 ..... abd
Edward George, Ohio Oil 3 ..... abd

Abandoned ..... 3

AUGLAIZE COUNTY

Moulton—Harry J. Hanold .Adrian Tester Oil 4 ..... 5

MERCER COUNTY

Union—William Emans, Grace & Langford 1 ..... 3

SANDUSKY COUNTY

Scott—J. Yeasting No. 2, Ohio Oil 6, 16 abd

Abandoned ..... 2

SENECA COUNTY

Hopewell—D. F. Watson, D. Lyons & Co. 1 ..... 1
Anna Shoull, Sandusky Gas 1 ..... gas
Liberty—L. E. Koerper, M. E. Kiser 3 .. gas

Wells completed ..... 3
Production ..... 1
Gas ..... 2

WYANDOT COUNTY

Crane—Carl Smith, McPheron & Co. 1.. 75
Crawford—L. G. Beis, Harpster & Co. 1 gas

Wells completed ..... 2
Production ..... 75
Gas ..... 1

## Kentucky Fields

**Summary of Field Operations**

| | Comp. | Prod. | Dry | Gas | Rgs. | Dlg. | Ttl. |
|---|---|---|---|---|---|---|---|
| Ohio | 1 | 30 | 0 | 0 | 0 | 12 | 12 |
| Daviess | 3 | 125 | 2 | 0 | 0 | 13 | 13 |
| Hancock | 0 | 0 | 0 | 0 | 0 | 7 | 7 |
| McLean | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Henderson | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Muhlenberg | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Madison | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Bath | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Breckendrige | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Greene | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Edmonson | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Todd | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Grayson | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Lee | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Knox | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Ttl. Apr. | 4 | 155 | 2 | 0 | 2 | 46 | 48 |
| Ttl. Mar. | 9 | 942 | 4 | 1 | 2 | 45 | 47 |
| Difference | 5 | 787 | 2 | 1 | 0 | 1 | 1 |

WELLS COMPLETED

OHIO COUNTY

Cane Run—Henry Sauer, Hupp & Duff 1 ..... 30

DAVIESS COUNTY

Owensboro—J. W. Richardson, Tracey Supply Co. 3 ..... 125
Aca Bratcher, Hupp, Duff & Co. 8.. dry
R. E. Jackson, Brenner & Adams 1.. dry

Wells completed ..... 2
Production ..... 125
Dry ..... 2

## Michigan Fields

**Summary of Field Operations**

| | Comp. | Prod. | Dry | Gas | Rgs. | Dlg. | Ttl. |
|---|---|---|---|---|---|---|---|
| Muskegon | 1 | 0 | 1 | 0 | 4 | 8 | 12 |
| Isabella | 2 | 0 | 2 | 0 | 4 | 7 | 11 |
| Midland | 19 | 9,825 | 3 | 0 | 8 | 30 | 38 |
| Clare | 1 | 0 | 1 | 0 | 3 | 0 | 3 |
| Oceana | 0 | 0 | 0 | 0 | 1 | 9 | 10 |
| Lake | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Iosco | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Gratiot | 0 | 0 | 0 | 0 | 2 | 2 | 4 |
| Cass | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Kent | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| Emmett | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Saginaw | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Montmorency | 0 | 0 | 0 | 0 | 3 | 0 | 3 |
| Leelanau | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Sanilac | 0 | 0 | 0 | 0 | 3 | 0 | 3 |
| Newaygo | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Wexford | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| Ehiawassee | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| Allegan | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Livingston | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| Oscola | 0 | 0 | 0 | 0 | *1 | 0 | 1 |
| St. Clair | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Alpena | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Cheboygan | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Oakland | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Macomb | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Genessee | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Tuscola | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| St. Joe | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Ogemaw | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Ttl. Apr. | 24 | 9,825 | 3 | 0 | 42 | 75 | 117 |
| Ttl. Mar. | 15 | 1,655 | 4 | 2 | 49 | 82 | 131 |
| Difference | 9 | 8,170 | 4 | 2 | 7 | 7 | 14 |

WELLS COMPLETED

MUSKEGON COUNTY

Dalton—O. Trumbull, Muskegon Oil 1 . dry

ISABELLA COUNTY

Chippewa—Dennis & Co., C. Frec White & Co. 1 ..... dry
Vernon—Mrs. David Crowley, Mellon-Pollock Oil 1 ..... dry
Siens, Leonard Pet. Co. 2 ..... abd

Wells completed ..... 2
Dry ..... 2
Abandoned ..... 1

CLARE COUNTY

Summerfield—All-American Fur Farm, Ira Scheefley tr. 1 ..... dry

WEXFORD COUNTY

Haring—Carrie B. McNitt est., Oil Prospecting Corp. 1 ..... dry

MIDLAND COUNTY

Greendale—Iosco Land Co., Pure Oil 5-A 335
Joe Novak, Pure Oil 2-A ..... 55
Edward Harris, Pure Oil 4 ..... 160
Chas. D. Mullett & Co., Pure Oil 7 .. 650
Emma O. Reed, Pure Oil 7 ..... 200
T. E. McCann, Pure Oil 2 ..... 300
Anna Corning est., Pure Oil 1 ..... abd
R. Hancock N. 20 ac., Pure Oil 3-A. dry
Wm. H. Hill, Columbia O. & G. 3 .. 100
Gilson-Fales, Columbia O. & G. 2 ... 15
Geo. C. Hanners, Geneva Oil 1 ..... 70
Adrain Steed, Theodore Oil 2 ..... dry
Root, W. L. McClanahan, Inc. 2 .... 650
Wilhelm-Johnson, W. L. McClanahan, Inc. 2 ..... 210
J. P. Moffett, Felton, Flarida & Co. 1 100
Porter—State-Porter, Pure Oil 1 .....5000
F. O. Mates, Pure Oil 1 ..... 1250
Otway, Chas. W. Teater 2 ..... 480
Otway, Chas. W. Teater 3 ..... 250
Mt. Haley—W. A. Ryal, L. G. Thompson 1 ..... dry
Lee—Talker, Gordon Oil 2 ..... abd

Wells completed ..... 19
Production ..... 9825
Dry ..... 3
Abandoned ..... 2

## California Fields

(Continued from Page 52)

eral Petroleum got a wet job on No. 15-A Barnsnard in the Ventura Avenue Field but since the water was entering the hole below the shoe of the 9⅝-inch landed at 7,070 feet the company resumed drilling operations. This well is a projected completion in the deep 57 zone discovered by Associated a few years ago. Shell spudded in a new well at Ventura Avenue this week, No. 76 Taylor. In the Santa Susana district of Ventura County, C. L. Anderson finished his No. 12 pumping 25 bbls. of clean 32.1 gravity oil on an open hole test between 982-1,452 feet. This well is in an area productive for a number of years. Merchants Petroleum got a water well in No. 6 Cochran in the Sespe district of Ventura County at 954 feet but it was killed to permit a resumption of drilling. The flow of water, approximating 10,000 bbls. daily, was somewhat unexpected as the well was scheduled for completion around the 2,000-foot level.

Work was rather slow in the Huntington Beach Seventeeth Street town lot area during the week due to the fact that many of the wells under way are redrilling jobs which, as a rule, require considerable preliminary work before any new hole is made. Most of the wells under way are upper zone producers being redrilled and deepened. The latest locations for new wells include Doyle Petroleum's No. 1 Doyle, Milton Oil Co.'s No. 1 Lewis and Simaroo Oil Co.'s No. 2 Morris.

Four wells were put on production in the Long Beach Field during the week, none of which showed substantial production. General Petroleum's No. 1 Signal was recompleted on the beam pumping 140 bbls. of 27.1 gravity oil per day cutting 10 per cent from 5,179 feet. W. F. Higgins succeeded in finishing his No. 1 Signal doing 218 bbls. of clean 24.8 gravity oil per day from 5,170 feet, the hole having been completed with a 4½-inch liner including 235 feet of perforated. No. 1 Dollarhide of Macmillan Petroleum Co. was returned to production pumping 118 bbls. of unusually clean 24.6 gravity oil per day after being cleaned out to bottom, 5,132 feet, and finished with a 5¾-inch liner carrying 220 feet of perforated. Macmillan Petroleum's No. 8 Signal showed a little better production as it was brought in pumping 297 bbls. of very clean 24.9 gravity oil per day from 5,415 feet, the hole having been plugged back from 633 feet. Plymouth Oil Co.'s No. 10, finished a few months ago flowing approximately 2,000 bbls. per day from 5,070 feet after having been plugged back from 6,961 feet, died early this week and the company is attempting to recomplete it on a gas lift. Texas Co. has erected derrick and is rigging up rotary equipment for a new wildcat in the Pico district of Los Angeles Basin in Section 13-2-12. This general vicinity is considered worthy of a thorough test as operators have believed for a long time there should be a productive field somewhere in this general area.

### F. R. FOSTER KILLED

LONGVIEW, Tex., June 12. — Frank R. Foster, Dallas, Tex., oil man given credit for bringing in the Lathrop discovery well in the East Texas oil field, was injured fatally when he stepped into the propellers of a plane at the Atlanta, Ga., airport. Mr. Foster was traveling with Frank Hart, owner of the ship.

### TANK AND BOILER ACTIVITY

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25 K.W. and 40 K.W. Gas Engines, 220 volts, D.C. Two 100 K.W. Gas Engine Generator Sets, 220 volts, D.C. 7x6 Ingersoll-Rand ER-1 Air Compressor. Six-inch Oster Pipe Threading Machine. Also, large stock of lathes, pipe machines, milling machines, etc. Send for our list. Terms to suit.
CINCINNATI MACHINERY & SUPPLY CO.
26 West 2nd St. Cincinnati, Ohio.

FOR SALE CHEAP
One Super D Fort Worth Spudder with string tools and eighty HP Climax motor. All in good condition. O. W. Ellison, Box 348, Abilene, Tex.

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Immediate delivery, 10—55,000-barrel steel storage tanks, will sell one or more, located Burkburnett, Texas., or will cut down and re-erect on your grade with new steel roofs at great saving. Also have purchased 10 steel roof tanks 55,000-barrel Teapot Dome line, built new in 1926. All tanks strictly guaranteed. Wire, phone or write
SONKEN-GALAMBA CORPORATION
64 North 2nd St. Kansas City, Kans.

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WE are in the market for 20 miles of 4-inch used line pipe T.&C. Send full particulars stating condition, price, etc. Address Box F-660, The Oil and Gas Journal, Tulsa, Okla.

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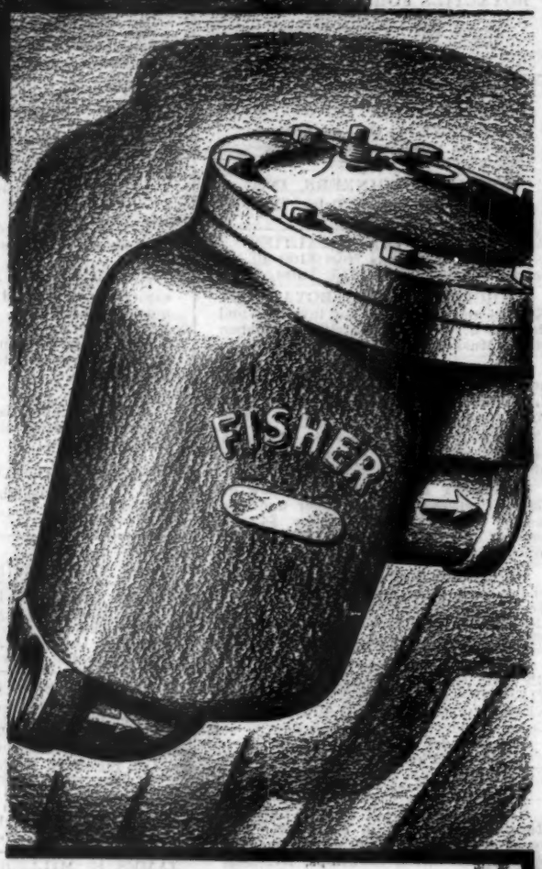


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